

Transmission and Infection Control Section

Necessary Conditions for Infection with HIV

HIV is a relatively fragile virus, which is not spread by casual contact. HIV is not easy "to catch." It must be *acquired*. In order for HIV to be transmitted, three conditions must occur: there must be **an HIV source**; there must be a **sufficient dose of virus**; and there must be **access to the bloodstream** of another person.

HIV source and body fluids that can transmit HIV

Anyone infected with the virus is potentially a source of HIV infection. Transmission occurs primarily through **infected blood, semen, vaginal secretions or breast milk**. Sweat, tears, saliva, urine and feces are not capable of transmitting HIV unless visibly contaminated with blood. In settings such as hospital operating rooms, other fluids, like cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid and amniotic fluid may be considered infectious if the source is HIV positive. These fluids are generally not found outside the hospital setting. Therefore the most common body fluids considered potentially infectious for HIV are blood, semen, vaginal secretions and breast milk.

Sufficient Dose

"Sufficient dose" refers to the concentration and amount of HIV necessary for infection to occur.

Blood

Access to another person's bloodstream involves behaviors or circumstances that place someone at risk for infectious fluid entering their bloodstream. The most common of the risk behaviors are:

- **unprotected sexual intercourse (anal, vaginal, oral) with an infected person, and**
- **use of contaminated injection equipment for use in injecting drugs.**

Blood, continued

HIV transmission may occur during practices such as tattooing, blood-sharing activities such as "blood brothers" rituals, or any other type of ritualistic ceremonies where blood is exchanged or unsterilized equipment contaminated with blood is shared.

HIV transmission may also occur in occupational settings. This will be discussed later in this section, on page 16.

HIV Transmission

People may become infected with HIV if they engage in specific risk behaviors or if they are exposed through needle stick injuries (usually in a healthcare setting.) Other blood contact with mucous membranes or non-intact skin provides a possible, but not probable, chance of transmission.

How is HIV transmitted?

HIV is transmitted through:

- Unprotected **anal, vaginal, and oral intercourse**
- **Sharing needles** or other injection equipment
- A **mother passing the virus to her baby** either before or during birth
- An infected woman **breastfeeding** her infant
- Accidental **needlestick injuries**, or infected body fluid coming into contact with the broken skin or mucous membranes of another person (as with healthcare workers)
- A **Transfusion** prior to 1986 of HIV-infected blood or blood products
- In **extremely** rare cases, sharing razors or toothbrushes (if infected blood from one person were deposited on the toothbrush or razor, and the blood were to enter the bloodstream of another person).

HIV transmission requirements

The transmission of HIV depends upon:

- the availability of the infectious agent (HIV) in sufficient quantity
- the viability of the infectious agent (how strong it is)
- the virulence of the infectious agent (how infectious it is)
- the ability of the infectious agent to reach the blood stream, mucous membranes or broken skin of a potential host (i.e., getting into another person's body)

HIV transmission requirements, continued

One of the predictors of how infectious an HIV-positive person is their viral load - how much HIV is present in the bloodstream. Studies show a clear connection between higher viral load in the blood and increased transmissibility of HIV.

Transfusion of blood or blood products

Transmission by contaminated blood or blood products occurred in the United States before March, 1985. Testing for HIV at blood banks and organ transplant centers began in 1985 and has almost completely eliminated these risks for transmission in developed countries.

In 1999, about 1% of national AIDS cases were caused by transfusions or use of contaminated blood products. The majority of those cases were in people who received blood or blood products before 1985.

Probability of HIV transmission from one HIV exposure

Donor screening, blood testing and other processing measures have reduced the risk of transfusion-caused HIV transmission to between 1 in 450,000 to 1 case in 600,000 transfusions in the U.S. In the U.S., donating blood is always safe, because sterile needles and equipment are used.

The CDC has estimated the following probabilities of infection following ONE exposure to HIV:

- Contaminated blood transfusion (prior to 1986) 95% HIV infection rate
- One intravenous syringe or needle exposure 0.67%
- One percutaneous exposure (e.g. a needlestick) 0.4%
- One episode of receptive anal sexual intercourse 0.1%-3%
- One episode of receptive vaginal intercourse 0.1%-0.2%
- One episode of insertive vaginal intercourse 0.03%-0.09%

A 1% risk means 1 chance in 100 for infection to occur. A .10% risk means 1 chance in 1,000.

HIV versus hepatitis viability

HIV is considered to be a fragile virus when exposed to air and room temperatures. Hepatitis B (HBV) and C (HCV) are both considered "stronger" viruses that can remain infectious for a longer period of time. When these viruses are outside the human body, much depends on environmental factors (heat, cold, exposure to oxygen, etc.). HBV and HCV will be discussed later in this manual.

HIV versus hepatitis viability, continued

All used syringes, needles, blood or body fluid spills should be considered potentially infectious, and should be treated using Standard Precautions, also commonly known as universal precautions. Standard and universal Precautions are discussed in the Bloodborne Pathogens section on page 16.

Sexual intercourse

HIV can enter the bloodstream through mucous membranes, breaks, sores and cuts in the mouth, anus, vagina or penis. Anal, vaginal and oral intercourse (both receptive and penetrative) can transmit HIV from person to person.

Anal intercourse

Unprotected anal intercourse is considered to be the greatest sexual risk for transmitting HIV. Anal intercourse frequently results in tears of mucous membranes, which makes it very easy for the virus to enter the bloodstream. The receptive partner ("bottom") is considered to be at more risk of getting HIV (if the virus is present.) Risks may vary for the insertive ("top") partner.

Vaginal intercourse

Unprotected vaginal intercourse with the exchange of semen, pre-ejaculate fluid (pre-cum), menstrual blood or vaginal fluids is also a risk for HIV transmission.

Studies have shown that women are more likely to become infected with HIV through vaginal sex than men. The larger amount of mucous membrane surface area of the vagina is a probable reason for women's greater rate of HIV infection from their male partners.

Sharing needles and drug injection equipment

Sharing injection needles, syringes, etc. with an HIV-infected person can put HIV directly into the user's bloodstream and is the behavior which most efficiently transmits HIV, HBV and HCV.

"Indirect sharing"

Indirect sharing occurs when drug injectors share injection paraphernalia and/or divide a shared or jointly purchased drug while preparing and injecting it. The paraphernalia that carries the potential for transmission are the syringe, needle, "cooker", cotton, and/or rinse water. Sharing these items (sometimes called "works") may transmit HIV or other bacteria and viruses. Examples of indirect sharing:

“Indirect Sharing” continued

- Squirting the drug back (from a dirty syringe) into the drug cooker and/or someone else's syringe
- Sharing a common filter and/or rinse water

HIV and pregnancy

An HIV-infected woman may transmit the virus to her baby during pregnancy, during the birth process, and/or following pregnancy by breastfeeding. Again, one of the predictors of how infectious the woman will be to her baby is her viral load (how much HIV is present in her bloodstream). Women with new or recent infections or people in later stages of AIDS tend to have higher viral loads and may be more infectious.

In 1994, researchers discovered that a course of the antiretroviral drug AZT (zidovudine) significantly reduced the transmission of HIV from woman to baby. In 2002, medications such as AZT and others are used during pregnancy and delivery to prevent transmission of HIV.

HIV is transmitted from an HIV-infected woman to her baby in about 25% of pregnancies if intervention with antiretroviral medications does not occur. The perinatal transmission rate has dropped dramatically in the U.S. due to the widespread use of AZT by HIV-infected pregnant women. When a woman's health care is monitored closely and she receives a combination of antiretroviral therapies during pregnancy the risk of HIV transmission to the newborn drops below 2 percent.

In some pregnancies, caesarian section (C-section) may be recommended to reduce the risk of transmission from woman to baby. Advice about medications and C-section should be given on a case-by-case basis by a medical provider with experience in treating HIV+ pregnant women.

Washington state law requires pregnant women to be counseled regarding risks around HIV and offered voluntary HIV testing.

Lifelong infection

HIV infection is lifelong. Once a person becomes infected with HIV, their blood, semen, vaginal secretions and/or breast milk will always be potentially infectious.

Transmission of multi- drug resistant forms of HIV

There is evidence of transmission of multi-drug resistant forms of HIV. People who have been infected with HIV and have used a number of the available antiretroviral medicines may transmit

Multi-drug resistant HIV, continued

forms of HIV that are resistant to some of these available drug therapies. This reduces the treatments available for the newly-HIV-infected person. A discussion of treatments for HIV is found on page 56.

Factors Affecting HIV Transmission

The presence of other sexually transmitted diseases (STDs) increases the risk for HIV transmission, because the infected person may have a much larger number of white blood cells (infected with HIV) present at the sore or infected area(s).

Presence of other STDs

The infected person's immune system may be less able to suppress or combat HIV infection. Sores or lesions from STDs break down the protective surface of the skin or mucous membrane, which makes the infected person more vulnerable to other infections. More information on STDs can be found starting on page 61.

The presence of infection with other STDs increases the risk of HIV transmission because:

- 1) STDs like syphilis and symptomatic herpes can cause breaks in the skin, which provide direct entry for HIV
- 2) Inflammation from STDs, such as chlamydia, makes it easier for HIV to enter and infect the body
- 3) HIV is often detected in the pus or other discharge from genital ulcers from HIV-infected men and women
- 4) Sores can bleed easily and come into contact with vaginal, cervical, oral, urethral and rectal tissues during sex
- 5) Inflammation appears to increase HIV viral shedding and the viral load in genital secretions

Multiple partners

Having "multiple partners" for drug injection and/or sexual intercourse increases the chances of being exposed to a person infected with HIV. Persons who have unprotected sex with multiple partners are considered to be at high risk for HIV infection. In some studies, the CDC defines multiple partners as six or more partners in a year. However, someone who has only one partner is still be at risk if the person is HIV-positive and they have unprotected sex and/or share needles.

Use of non-injecting drugs

Use of other substances, including alcohol and non-injected "street drugs," can also put a person at risk for getting HIV. These substances can impair judgment which can increase the likelihood that a person will take risks (having unprotected sex, sharing needles) or may place the person in unsafe situations. Additionally, some substances have physiological and biological effects on the body, including masking of pain and the creation of sores on the mouth and genitals, which can create additional "openings" for HIV and other sexually transmitted diseases.

Gender and equality issues

Lack of power in a relationship can affect a person's ability to insist on sexual protection, such as the use of condoms. Women are often socially and economically dependent upon men in many countries. This can make them unable to ask their partner to use condoms or to leave a relationship that puts them at risk.

In some cultures, females are not encouraged to learn about their bodies, sex, birth control, or other sexuality topics. Other cultures promote the value of the male having multiple sexual partners, while discouraging the same behavior in females.

Casual Contact

HIV is not transmitted through the air. Sneezing, breathing and coughing do not transmit HIV. Touching, hugging and shaking hands do not transmit HIV. HIV transmission is not possible from food in a restaurant that is prepared or served by an HIV-infected employee.

HIV is not transmitted through casual contact in the workplace. No cases of HIV transmission have been linked to sharing computers, food, telephones, paper, water fountains, swimming pools, bathrooms, desks, office furniture, toilet seats, showers, tools, equipment, coffee pots or eating facilities. However, personal items which may be contaminated with blood, including but not limited to razors, toothbrushes and sex toys, should not be shared.

Children

There have been no cases of HIV transmission by children playing, eating, sleeping, kissing and hugging.

Unusual cases of HIV transmission

To date, there have been less than a dozen known cases of HIV transmission that have occurred in household settings in the U.S. and other countries. Reports of these cases have been thoroughly

Unusual cases of HIV transmission, continued

investigated by the CDC. The researchers determined that the transmissions were caused by sharing a razor contaminated with infected blood, the exposure of infected blood to cuts and broken skin, and possibly deep kissing involving a couple who both had bleeding gums and poor dental hygiene. It is important to remember that these cases were extremely unusual. Sensible precautions with bleeding wounds and cuts and not sharing personal hygiene items would have prevented these cases of infection.

There are also isolated cases of transmission from health care workers to patients. To date, there were three instances where transmission of HIV could only be tracked to the HIV-infected doctor, dentist or nurse treating the patient. At least one of these cases occurred prior to the implementation of strict equipment disinfection.

Biting

Biting poses very little risk of HIV transmission. The possibility only exists if the person who is biting and the person who is bitten have an exchange of blood (such as through bleeding gums or open sores in the mouth.) Bites may transmit other infections, and should be treated immediately by thoroughly washing the bitten skin with soap and warm water, and disinfecting with antibiotic skin ointment.

Workplace situations

Workplace exposures occur through an unintentional needlestick injury or potentially through a splash with potentially infectious blood or blood-contaminated material

Risk Reduction Methods

Methods for reducing the risk of sexual and drug-related transmission of HIV include:

Sexual abstinence

Sexual abstinence (not engaging in anal, vaginal or oral intercourse or other sexual activities where blood, semen or vaginal fluid can enter the body) is a completely safe and 100% effective method for preventing the sexual transmission of HIV.

Non-penetrative sex, where the penis does not enter the vagina or anus, nor are penetrative sex toys shared, is a safer sex method that greatly decreases your risk of getting infected with HIV. This practice will not transmit HIV, provided that there is no

Sexual abstinence, continued

exchange of blood, semen, vaginal fluids or breast milk in the sexual contact. Non-penetrative sexual intercourse may still be a risk factor for the transmission of other sexually transmitted diseases.

Monogamous relationships

Monogamous long-term relationships (having sex with only one person who only has sex with you) is another choice to prevent/reduce the risk of HIV infection. If neither partner is infected with HIV or other STDs, and neither has other sexual or injection equipment-sharing contacts, then neither partner is at risk of exposure to HIV or other STDs. In order for monogamy to protect against HIV and STDs both partners must be free of disease and both partners must remain monogamous.

Limiting partners

The decision to limit the number of sexual or drug-injecting partners may reduce the risk of HIV transmission, but is not a guarantee of safety. The fewer the partners, the greater the reduction of risk.

Safer sexual practices

Latex condoms, when used correctly and consistently during sexual intercourse, (anal, vaginal and oral) are highly effective in preventing the transmission of HIV.

Only water-based lubricants should be used to prevent tearing of latex condoms. Oil-based lubricants like petroleum jelly or cooking oils should not be used because the oil in these products breaks down the condom. Other safer sexual measures include:

- **Polyurethane condoms**

Male - These condoms are made of a soft plastic. They look like latex condoms but are thinner. Lab tests show that sperm and viruses (like HIV) cannot pass through polyurethane.

Female or insertive - The female/insertive condom fits inside the vagina or anus. It is made of polyurethane, which blocks sperm and viruses (like HIV). These condoms may be inserted several hours before intercourse.

- **Dental dams/other barriers**

Dental dams, large pieces of new, unused, clear, non-microwaveable plastic wrap, and latex condoms may be used to provide a barrier to reduce the risk of HIV transmission during

Safer sexual practices, continued

oral intercourse on a female. The latex condom can be cut into a square for use as a dental dam. Simply cut off the tip and then down one side, and open it into a square. Water-based lubricant may be used with the dental dams, plastic wrap or cut-open condoms to enhance sensitivity and reduce friction.

- **CAUTION: Natural membrane condoms**

Natural membrane condoms (“skins”) **do not** provide protection from **HIV, HBV and some other STDs**. (They can help prevent pregnancies and some STDs, such as syphilis).

If two people are infected with HIV, do they still need to have protected sex?

Some people think it's safe for HIV-infected people to have unprotected sex with each other. Latex condoms are advised when both partners are HIV-positive. Each additional exposure to the virus may further weaken an immune system already damaged by HIV. Other STDs are transmitted through unprotected sex. Any additional viral or bacterial infection stresses the immune system and should be avoided.

Not injecting drugs is another way to avoid the risk of transmission of HIV.

Avoidance of injecting drug use

If entering drug treatment or abstaining from using injecting drugs is not possible, then use a clean needle each time and do not share injection equipment. This includes people who use needles to inject insulin, vitamins, steroids or prescription or non-prescription drugs.

Syringe exchange

Syringe exchange, or needle exchange, is a disease prevention program for people who use illegal drugs. It provides new sterile syringes in exchange for used ones. People who trade in their used syringes/needles for clean ones at needle exchanges significantly reduce their risk for sharing needles and becoming infected with HIV or hepatitis. Syringe exchanges are also referral sources for drug treatment. Participants may be able to access drug treatment through the intervention of the syringe exchange staff.

Public support for syringe exchange has grown in recent years. Many local health departments in Washington State, some in conjunction with other organizations, operate syringe exchanges in their communities. For more information, contact your local health department/district's HIV/AIDS Program.

Using bleach and water to clean syringes

It is safest to always use new, sterile needles and syringes, as well as other "works" which can all become contaminated with blood (cotton, cooker, water, etc.). If someone cannot avoid sharing syringes, rinsing out the syringe/needle with full strength bleach and clean water helps clean the syringe/needle and kill HIV inside it.

There is high prevalence of HBV and HCV infection among injecting drug users; these viruses are stronger than HIV and are not likely to be killed by short contact with bleach. Cleaning the syringe with bleach and water is not likely to prevent transmission of HBV or HCV.

There is no substitute for a new syringe. If there is no possible way to obtain new needles, the directions for using bleach to clean syringes/needles follows:

- 1) Fill the syringe completely with water. Tap it with your finger to loosen any traces of blood. Shake the syringe. Shoot out the bloody water. Repeat these steps until you can't see any blood.
- 2) Fill the syringe completely with fresh bleach. Keep the bleach inside the syringe for **at least 30 seconds**. Shoot out the used bleach.
- 3) **Rinse out the syringe with NEW CLEAN water.** Shake the syringe, then squirt out the water.

It is important to follow these steps exactly, because inadequate cleaning can result in the possibility of HIV infection. **Always do the final rinse with water!**

Occupational Exposure to Bloodborne Pathogens

The following requirements are mandated by Washington Administrative Code (WAC) 296-823, Occupational Exposure to Bloodborne Pathogens. They are enforced by the Department of Labor and Industries Division of Occupational Safety and Health (DOSH). Please check with your agencies to make sure you are in compliance with the requirements of this rule. Failure to comply may result in citations or penalties.

This is a brief summary, and is not meant to provide direction on compliance with WAC 296-823. The federal Occupational Safety and Health Administration's compliance directive on occupational exposure to bloodborne pathogens, CPL 2-2.69, may be

referenced for additional direction. For more information or assistance, contact an L&I consultant in your area. Check the blue government section of the phone book for the office nearest you, or call L&I's 24-hour toll-free line 1-800-4-BE-SAFE. For Internet access, go to www.lni.wa.gov.

Rule Scope

WAC 296-823, Occupational Exposure to Bloodborne Pathogens, provides requirements to protect employees from exposure to blood or other potentially infectious materials (OPIM) that may contain bloodborne pathogens.

This chapter applies to employers who have employees with occupational exposure to blood or OPIM, even if no actual exposure incidents have occurred.

“Occupational exposure” means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM that may result from the performance of an employee's duties.

“Exposure incident” means a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials (OPIM) that results from the performance of an employee's duties. Examples of non-intact skin include skin with dermatitis, hangnails, cuts, abrasions, chafing, or acne.

Occupational groups that have been widely recognized as having potential exposure to HBV/HCV/HIV include, but are not limited to, health care employees, law enforcement, fire, ambulance, and other emergency response and public service employees.

Bloodborne Pathogens

While HBV and HIV are specifically identified in the standard, "Bloodborne Pathogens" include any human pathogen present in human blood or other potentially infectious materials (OPIM). Bloodborne pathogens may also include HCV, Hepatitis D, malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-Jakob disease, adult T-cell leukemia/lymphoma (caused by HTLV-I), HTLV-I associated myelopathy, diseases associated with HTLV-II, and viral hemorrhagic fever.

Bloodborne Pathogens, continued

According to the CDC, HCV infection is the most common chronic bloodborne infection in the United States. HCV is a viral infection of the liver transmitted primarily by exposure to blood. More information on HCV is available starting on page 67.

Blood and Other Potentially Infectious Materials (OPIM)

Bodily fluids that have been recognized as linked to the transmission of HIV, HBV and HCV, and to which Standard Precautions and Universal Precautions apply are: blood, blood products, semen,, vaginal secretions, cerebrospinal fluid, synovial (joint) fluid, pleural (lung) fluid, peritoneal (gut) fluid, pericardial (heart) fluid, amniotic (fluid surrounding the fetus) fluid, saliva in dental procedures, and specimens with concentrated HIV, HBV and HCV viruses.

Body fluids such as urine, feces, and vomitus are not considered OPIM unless visibly contaminated by blood.

Wastewater (sewage) has not been implicated in the transmission of HIV, HBV, and HCV and is not considered to be either OPIM or regulated waste. However, plumbers working in health care facilities or who are exposed to sewage originating directly from health care facilities carry a theoretical risk of occupational exposure to bloodborne pathogens. Employers should consider this risk when preparing their written “exposure determination”. Plumbers or wastewater workers working elsewhere are probably not at risk for exposure to bloodborne pathogens. Wastewater contains many other health hazards and workers should use appropriate personal protective equipment and maintain personal hygiene standards when working.

Exposure Control Plan (ECP)

Each employer covered under WAC 296-823 must develop an Exposure Control Plan (ECP). The ECP shall contain at least the following elements:

- A written “**exposure determination**” that includes those job classifications and positions in which employees have the potential for occupational exposures. The exposure determination shall have been made without

Exposure Control Plan (ECP), continued

taking into consideration the use of personal protective clothing or equipment. It is important to include those employees who are required or expected to administer first aid.

- The procedure for evaluating the circumstances surrounding exposure incidents, including maintenance of a “Sharps Injury Log.”
- The infection control system used in your workplace
- Documentation of consideration and implementation of appropriate, commercially available safer medical devices designed to eliminate or minimize occupational exposure.
- The ECP must be updated on at least an annual basis and whenever changes occur that effect occupational exposure.

Bloodborne Pathogens Training

All new employees or employees being transferred into jobs involving tasks or activities with potential exposure to blood/OPIM shall receive training in accordance with WAC 296-823-120 prior to assignment to tasks where occupational exposure may occur.

Training will include information on the hazards associated with blood/OPIM, the protective measures to be taken to minimize the risk of occupational exposure, and information on the appropriate actions to take if an exposure occurs.

Retraining is required annually, or when changes in procedures or tasks affecting occupational exposure occur.

Employees must be provided access to a qualified trainer during the training session to ask and have answered questions as questions arise.

Hepatitis B Vaccination

All employees with occupational exposure to blood or OPIM must be offered hepatitis B

Hepatitis B Vaccination, continued

vaccination after receiving required training and within 10 days of initial assignment. The vaccine must be provided free of charge. Serologic testing after vaccination (to ensure that the shots were effective) is recommended for all persons with ongoing exposure to sharp medical devices.

The provision of employer supplied hepatitis B vaccination may be delayed until after probable exposure for employees whose sole exposure risk is the provision of first aid (see WAC 296-823-130).

Infection Control Systems

"Universal precautions," is a system designed to prevent transmission of bloodborne pathogens in health care and other settings. Under universal precautions, blood/OPIM of all patients should always be considered potentially infectious for HIV and other pathogens.

"Standard Precautions" is a newer system that considers all body fluids, except sweat, should be considered to be potentially infectious.

Universal and Standard Precautions involve the use of protective barriers, defined below in the "personal protective equipment" section, to reduce the risk of exposure of the employee's skin or mucous membranes to OPIM. It is also recommended that all health care workers take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices. Both Universal and Standard Precautions apply to blood and OPIM listed above in the "Blood and Other Potentially Infectious Materials (OPIM)" section.

Personal Protective Equipment (PPE)

Gloves, masks, protective eyewear and chin-length plastic face shields are examples of personal protective equipment (PPE). PPE shall be provided and worn by employees in all instances where they will or may come into contact with blood or OPIM. This includes, but is not limited to dentistry, phlebotomy or processing of any bodily fluid specimen, and postmortem (after death) procedures.

Personal Protective Equipment (PPE), continued

Traditionally, latex gloves have been advised to use when dealing with blood or OPIM. However, there have been documented cases of people with allergies to latex. In most circumstances, nitrile, vinyl and other glove alternatives meet the definition of “appropriate” gloves and may be used in place of latex gloves. Employers are required to provide non-latex alternatives to employees with latex and other sensitivities.

Reusable PPE must be cleaned and decontaminated, or laundered by the employer.

Lab coats and scrubs are generally considered to be worn as uniforms or personal clothing. When contamination is reasonably likely protective gowns should be worn. If lab coats or scrubs are worn as PPE they must be removed as soon as practical and laundered by the employer.

Safer Medical Devices

Safer medical devices and work practices shall be used in preference to personal protective equipment to minimize or eliminate employee exposure.

There are now many safer medical devices available. Employers must include employees in ongoing evaluation of safer medical devices and implement these devices whenever feasible. Evaluation and implementation of these devices must be documented in the ECP. Safer medical device lists can be accessed through web sites maintained by the California Division of Occupational Safety and Health SHARP program, the National Association for the Primary Prevention of Sharps Injuries, and the International Health Care Worker Safety Center.

Hand Hygiene

Hand hygiene (soap and water washing or use of a waterless alcohol based hand rub) must be performed:

- After removal of gloves and/or other protective equipment.
- Immediately after hand contact with blood or other infectious materials.
- Upon leaving the work area.

Hand Hygiene, continued

It is also recommended that hand hygiene be performed before and after patient contact and after using restroom facilities.

Soap and water hand washing must be performed whenever hands are visibly contaminated or there is a reasonable likelihood of contamination. Proper soap and water hand washing technique involves the following:

- Using soap, warm (almost hot) water, and good friction, scrub the top, back, and all sides of the fingers.
- Lather well and rinse for at least 10 seconds. When rinsing, begin at the fingertips, so that the dirty water runs down and off the hands from the wrists. It is preferable to use a pump-type of liquid soap instead of bar hand soap.
- Dry hands on paper towels. Use the dry paper towels to turn off the faucets (don't touch with clean hands).

It is advisable to keep fingernails short, and to wear a minimum of jewelry. Additional information on hand hygiene can be found in the CDC Guideline for Hand Hygiene in Healthcare Settings, 2002.

Housekeeping

The work area is to be maintained in a clean and sanitary condition. The employer is required to determine and implement a written schedule for cleaning and disinfection based on the location within the facility, type of surface to be cleaned, type of soil present and tasks or procedures being performed. All equipment, environmental and working surfaces must be properly cleaned and disinfected after contact with blood or OPIM.

Contaminated broken glassware must be removed using mechanical means, like a brush and dustpan or vacuum cleaner.

Disinfectants

Chemical germicides and disinfectants used at recommended dilutions must be used to decontaminate environmental surfaces. Consult the Environmental Protection Agency (EPA) lists of registered sterilants, tuberculocidal disinfectants, and antimicrobials with HIV/HBV efficacy claims for verification that the disinfectant used is appropriate.

Specimen Handling

Specimens of blood or OPIM must be placed in a closeable, labeled or color-coded leak proof container prior to being stored or transported.

Laundry

Laundry that is or may be soiled with blood or OPIM, and/or may contain contaminated sharps, must be treated as though contaminated.

Contaminated laundry must be bagged at the location where it was used, and shall not be sorted or rinsed in patient-care areas. It must be placed and transported in bags that are labeled or color-coded (red-bagged).

Laundry workers must wear protective gloves and other appropriate personal protective clothing when handling potentially contaminated laundry. All contaminated laundry must be cleaned or laundered so that any infectious agents are destroyed.

Guidance regarding laundry handling and washing procedures in the health care setting can be found in the CDC Guidelines for Environmental Infection Control in the Healthcare Facilities, 2003.

Regulated Waste Disposal

All regulated waste must be placed in closeable, leak proof containers or bags that are color-coded (red-bagged) or labeled as required by WAC 296-823-14060 to prevent leakage during handling, storage and transport. Disposal of waste shall be in accordance with federal, state and local regulations*.

WAC 296-823 defines “Regulated waste” as any of the following:

Regulated Waste Disposal, continued

- *Liquid or semiliquid blood or other potentially infectious materials (OPIM)*
- *Contaminated items that would release blood or OPIM in a liquid or semiliquid state, if compressed*
- *Items that are caked with dried blood or OPIM and are capable of releasing these materials during handling*
- *Contaminated sharps*
- *Pathological and microbiological wastes containing blood or OPIM.*

*RCW 70.95K addresses “biomedical waste management”. Individual county or health jurisdiction waste management regulations may need to be consulted.

Sharps Disposal

Needles are NOT to be recapped, purposely bent or broken, removed or otherwise manipulated by hand. After they are used, disposable syringes and needles, scalpel blades and other sharp items are to be immediately placed in puncture-resistant, labeled containers for disposal.

Phlebotomy needles must not be removed from holders unless require by a medical procedure.

The intact phlebotomy needle/holder must be placed directly into an appropriate sharps container.

Tags/Labels

Tags or labels must be used to protect employees from exposure to potentially hazardous biological agent sin accordance to the requirements contained in WACs 296-823-14025, 296-823-14050, and 296-800-11045. All required tags must have the following:

- Tags must contain a signal word or symbol and a major message. The signal word shall be "BIOHAZARD", or the biological hazard symbol. The major message must indicate the specific hazardous condition or the instruction to be communicated to the employee.

Tags/Labels, continued

- The signal word must be readable at a minimum of five feet or such greater distance as warranted by the hazard.
- The tag's major message must be presented in either pictographs, written text, or both.
- The signal word and the major message must be understandable to all employees who may be exposed to the identified hazard.
- All employees will be informed as to the meaning of the various tags used throughout the workplace and what special precautions are necessary.

Personal activities

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas that carry occupational exposure.

Food and drink

Food and drink must not be stored in refrigerators, freezers or cabinets where blood or OPIM are stored, or in other areas.

Post-Exposure Management

Employers must make a confidential post-exposure medical evaluation available to employees who report an exposure incident.

The post-exposure medical evaluation must be:

- Made immediately available
- Kept confidential
- Provided at no cost to the employee
- Provided according to current United States Public Health Service recommendations

The employer is also responsible for arranging source individual testing in accordance with WAC 296-823-160.

HIV/HBV Research Laboratories and Production Facilities

Additional requirements for HIV/HBV research laboratories and production facilities can be found in WAC 296-823- 180.

Management of Occupational Exposure to HIV/HBV/HCV and Other Blood-borne Pathogens

Occupational Exposure

An occupational exposure is defined as a percutaneous injury (e.g., a needlestick or cut with a sharp object) or contact of mucous membrane or non-intact skin (e.g., exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, tissue, or other potentially infectious materials.

What are the risks of infection from an occupational exposure?

The CDC states that the risk of infection varies case by case. Factors influencing the risk of infection include: whether the exposure was from a hollow-bore needle or other sharp instrument; to non-intact skin or mucus membranes (such as the eyes, nose, and/or mouth); the amount of blood that was involved and the amount of virus present in the source's blood.

Risk of HIV Transmission

The risk of HIV infection to a health care worker through a needlestick is less than 1 percent. Approximately 1 in 300 exposures through a needle or sharp instrument result in infection. The risks of HIV infection through splashes of blood to the eyes, nose or mouth is even smaller - approximately 1 in 1,000. There have been no reports of HIV transmission from blood contact with intact skin. There is a theoretical risk of blood contact to an area of skin that is damaged, or from a large area of skin covered in blood for a long period of time. Through December 2002, the CDC reports 57 documented cases and 139 possible cases of occupational exposure to HIV since reporting started in 1985.

Risk of Hepatitis B and C transmission

The risk of getting HBV from a needlestick is 22-31% if the source person tests hepatitis B surface antigen (HBsAg) and Hepatitis B e antigen (HBeAg) positive. If the source person is HBsAg positive and HBeAg negative one has a 1-6% risk of getting HBV unless the person exposed has been vaccinated. The risk of getting HCV from a needlestick is 1.8%. The risk of getting HBV or HCV from a blood splash to the eyes, nose or mouth is possible but believed to be very small. As of 1999,

Risk of Hepatitis B and C transmission, continued

about 800 health care workers a year are reported to be infected with HBV following occupational exposure. There are no exact estimates on how many health care workers contract HCV from an occupational exposure, but the risk is considered low.

Treatment after a potential exposure

FOLLOW THE PROTOCOL OF YOUR EMPLOYER. As soon as safely possible, wash the affected area(s) with soap and water. Application of antiseptics should not be a substitute for washing. It is recommended that any potentially contaminated clothing be removed as soon as possible. It is also recommended that you familiarize yourself with existing protocols and the location of emergency eyewash or showers and other stations within your facility.

Mucous membrane exposure

If the exposure is to the eyes, nose or mouth, flush thoroughly with water, saline or sterile irrigants. The risk of contracting HIV through this type of exposure is estimated to be 0.09%.

Sharps injuries

Wash the exposed area with soap and water. Do not "milk" or squeeze the wound. There is no evidence that shows using antiseptics (like hydrogen peroxide) will reduce the risk of transmission for any bloodborne pathogens; however, the use of antiseptics is not contraindicated. In the event that the wound needs suturing, emergency treatment should be obtained. The risk of contracting HIV from this type of exposure is estimated to be 0.3%.

Bite or scratch wounds

Exposure to saliva is not considered substantial unless there is visible contamination with blood or the saliva emanates from a dental procedure. Wash the area with soap and water, and cover with a sterile dressing as appropriate. All bites should be evaluated by a health care professional.

Note: For human bites, the clinical evaluation must include the possibility that both the person bitten and the person who inflicted the bite were exposed to bloodborne pathogens.

Exposure to urine, vomit, or feces

Exposure to urine, feces, vomit or sputum is not considered a potential bloodborne pathogens exposure unless the fluid is visibly contaminated with blood. Follow your employer's procedures for cleaning these fluids.

Reporting the Exposure

FOLLOW THE PROTOCOL OF YOUR EMPLOYER. . After cleaning the exposed area as recommended above, report the exposure to the department or individual at your workplace that is responsible for managing exposure.

Obtain medical evaluation as soon as possible. Discuss with a healthcare professional the extent of the exposure, treatment, follow-up care, personal prevention measures, the need for a tetanus shot and other care.

Your employer is required to provide an appropriate post exposure management referral at no cost to you. In addition, your employer must provide the following information to the evaluating health care professional:

- A copy of [WAC 296-823-160](#)
- A description of the job duties the exposed employee was performing when exposed
- Documentation of the routes of exposure and circumstances under which exposure occurred
- Results of the source person's blood testing, if available
- All medical records that you are responsible to maintain, including vaccination status, relevant to the appropriate treatment of the employee.

Note: HIV and hepatitis infection are notifiable conditions under WAC 246-101.

Post-exposure prophylaxis

Post-exposure prophylaxis (PEP) provides anti-HIV medications to someone who has had a substantial exposure, usually to blood. PEP has been the standard of care for occupationally-exposed healthcare workers with substantial exposures since 1996. Animal models suggest that cellular HIV infection happens within 2 days of exposure to HIV. Virus in blood is detectable within 5 days. Therefore, PEP should be started as soon as possible, within hours not days, after exposure and continued for 28 days. However, PEP for HIV does not provide prevention of other blood-borne diseases, like HBV or HCV.

HBV PEP for susceptible persons would include administration

Post-exposure prophylaxis, continued

of hepatitis B immune globulin and HBV vaccine. This should occur as soon as possible and no later than 7 days post-exposure.

The benefit of the use of antiviral agents to prevent HCV infection is unknown and antiviral are not currently FDA-approved for prophylaxis.

Because of the frequent advances in treatment, doses and medications are not listed here. Post-exposure prophylaxis can only be obtained from a licensed healthcare provider. Your facility may have recommendations and a chain of command in place for you to obtain PEP. After evaluation of the exposure route and other risk factors, certain anti-HIV medications may be prescribed. The national bloodborne pathogen hotline provides 24-hour consultation for clinicians who have been exposed on the job. Call 1-888-448-4911 for the latest information on prophylaxis for HIV, hepatitis, and other pathogens.

PEP is not as simple as swallowing one pill. The medications must be started as soon as possible, and continued for 28 days. Many people experience significant medication side effects.

It is very important to report occupational exposure to the department at your workplace that is responsible for managing exposure. If post-exposure treatment is recommended, it should be started as soon as possible. In rural areas, police, firefighters and other at-risk emergency providers should identify a 24-hour source for PEP.

In addition, Washington state workers have a right to file a worker's compensation claim for exposure to bloodborne pathogens. Industrial insurance covers the cost of post-exposure prophylaxis and follow-up for the injured worker.

HIV/HBV/HCV testing post-exposure

All occupational exposures should be evaluated by a health care professional. Evaluation should include follow-up counseling, post-exposure testing, and medical evaluation regardless of whether or not PEP is indicated. Antibody testing for HIV, HBV and HCV should be conducted for ≥ 6 months after occupational exposure. After baseline testing at the time of exposure, follow-up testing is recommended to be performed at 6 weeks, 12 weeks, and 6 months after exposure. Extended HIV follow-up (e.g., for 12 months) is recommended for those who become infected with HCV after exposure to a source co-

HIV/HBV/HCV testing continued

infected with HIV. Extended follow-up in other circumstances (e.g., for those persons with an impaired ability to mount an antibody response to infection) may also be considered.

Source testing

WAC 296-823-16010 requires the employer to arrange to test the “source individual” – someone whose blood or OPIM an employee was exposed to - for HIV, HBV and HCV as soon as feasible after getting their consent.

If the employer does not get consent the employer must document such and inform the employee.

Mandatory source testing

Because of an increased risk for HIV exposure, the Revised Code of Washington 70.24.340 provides for HIV antibody testing of a "source" when a law enforcement officer, fire fighter, health care provider or health care facility staff, and certain other professions experience an occupational exposure.

If you experience an occupational substantial exposure to another person's blood or OPIM, you can request HIV testing of the source individual through your employer or local health officer.

Before the health officer will issue a health order for HIV testing of the source individual, s/he will first make the determination of whether a substantial exposure occurred, and if the exposure occurred on the job. Depending on the type of exposure and risks involved, the health officer may make the determination that source testing is unnecessary.

In the case of occupationally exposed health care workers, if the employer is unable to obtain permission of the source individual, the employer may request assistance from the local health officer provided the request is made within 7 days of the occurrence.

Source testing does not eliminate the need for baseline testing of the exposed individual for HIV, HBV, HCV and liver enzymes. Provision of PEP should also not be contingent upon the results of a source's test. Current wisdom indicates immediate provision of PEP in certain circumstances, with discontinuation of treatment based upon the source's test results.

PEP for occupational exposure is standard, and its effectiveness has been documented. PEP for sexual exposure (assault or consenting) or for needle-sharing is not standard medical practice in many communities. Depending on your location in Washington State, providers may not even be familiar with the idea of providing PEP to people who have post-sexual exposure to HIV. The University of California at San Francisco has operated a PEP clinic for non-occupational exposure since 1997. For more information, call (415) 487-5538 or (415) 514-4PEP after hours.

Good places to start PEP include your local emergency room. In Seattle and Western Washington there are clinics that specifically treat HIV-positive people. You can get information about these clinics through Public Health Seattle-King County's website: www.metrokc.gov/health/news.

If your doctor has questions, he or she can call PEPLine, the University of California at San Francisco's hotline for clinicians - 1-888-HIV-4911. This is NOT a hotline for answering basic questions about HIV.

Non-occupational exposure to HIV

PEP should never be used for primary prevention of HIV. Unlike emergency contraception to prevent pregnancy, there are no good studies to show that PEP works for post-sexual exposure. It is a complicated combination of medicines that sometimes have serious side effects. Advice for counseling and PEP related to sexual assault is found in the Testing and Counseling section, starting on page 41.

Bloodborne Pathogen, Sanitary and Food Preparation Procedures for Homes and Home-like Settings

People who live or work in homes and home-like settings should practice good hygiene techniques in preparing food, handling body fluids and medical equipment. Cuts, accidents, or other circumstances can result in spills of blood/OPIM. These spills may be deposited upon carpeting, vinyl flooring, clothing, on a person's skin, or other surfaces. It is important that everyone, even young children, have a basic understanding that they should not put their bare hands in, or on, another person's blood. This section outlines practices for some commonly encountered situations.

Gloves

Gloves are available in latex, nitrile or vinyl. Some people have allergies to latex.

Gloves, continued

- Gloves should be worn when caretakers anticipate direct contact with any body substances (blood or OPIM) or non-intact skin.
- When you are through, carefully pull the gloves off, inside-out, one at a time, so that the contaminated surfaces are inside and you avoid contact with any potentially infectious material.
- Gloves should be changed, and hands washed as soon as possible between children, patients, etc.
- Never rub the eyes, mouth or face while wearing gloves.
- Latex gloves should never be washed and reused.

Handwashing Technique

Correct handwashing is extremely important. The steps to follow for good handwashing technique include:

- Use soap, warm (almost hot) water, and good friction, making sure to scrub the top, back, and all sides of the fingers.
- Lather well and rinse for at least 10 seconds. When rinsing, begin at the fingertips, so that the dirty water runs down and off the hands from the wrists. It is preferable to use a pump-type of liquid soap instead of bar hand soap.
- Dry hands on paper towels. Use the dry paper towels to turn off the faucets (don't touch with clean hands).

A waterless handwashing product should be made available for immediate use if a suitable sink is not readily available in the home or work setting. This product does not replace proper handwashing with soap and water. Refer to the manufacturer's directions for use.

People who have been exposed to body fluids should wash their hands BEFORE, as well as after, using the toilet.

The paper towel that was used to dry the hands may also be used to open the bathroom door, if necessary, before disposing of the towel.

Precautions with personal hygiene items

People **should not share** razors, toothbrushes, personal towels or washcloths, dental hygiene tools, vibrators, enema equipment or other personal care items.

Cleaning blood/OPIM

Wear appropriate gloves. Use sterile gauze or other bandages, and follow normal first-aid techniques to stop the bleeding. After applying the bandage, remove the gloves slowly, so that fluid particles do not splatter or become aerosolized. Hands should be washed using good technique as soon as possible.

Cleaning body fluid spills on vinyl floors

Any broken glass should be swept up using a broom and dustpan, (never bare hands!) Empty the dustpan in a well-marked plastic bag or heavy-duty container. The body fluid spill may be pre-treated with full-strength liquid disinfectant or detergent. Next, wipe up the body fluid spill with either a mop and hot, soapy water, or appropriate gloves and paper towels. Dispose of the paper towels in the plastic bag. Use a good disinfectant (e.g., household bleach 5.25% mixed fresh with water 1:10) to disinfect the area that the spill occurred. If a mop was used for the cleaning, soak it in a bucket of hot water and disinfectant for the recommended time. Empty the mop bucket water in the toilet, rather than a sink. Sponges and mops used to clean up body fluid spills should not be rinsed out in the kitchen sink, or in a location where food is prepared.

Cleaning body fluid spills on carpeting

Pour dry kitty litter or other absorbent material on the spill to absorb the body fluid. Then pour full-strength liquid detergent on the carpet, which helps to disinfect the area. If there are pieces of broken glass present, the broom and dustpan method can be used next to sweep up the kitty litter and visible broken glass. Use carpet-safe liquid disinfectant instead of diluted bleach on the carpeting. Pour this carefully on the entire contaminated area; let it remain there for the time recommended by the manufacturer. Follow this by absorbing the spill with paper towels and sturdy rubber gloves. Vacuum normally afterwards.

Any debris, paper towels, or soiled kitty litter should be disposed of in a sealed plastic bag that has been placed inside another plastic garbage bag. Twist and seal the top of the second bag as well.

Cleaning clothes or other laundry in home settings

Clothes, washable uniforms, towels or other laundry that have been stained with blood/OPIM should be cleaned and disinfected before further use. If possible, have the person remove the clothing, or use appropriate gloves to assist with removing the clothes. If it is a distance to the washing machine, transport the soiled clothing items in a sturdy plastic bag. Next, place the

Cleaning clothes or other laundry, continued

items in the washing machine, and soak or wash the items in cold, soapy water to remove any blood from the fabric. Hot water permanently sets blood stains. Use hot soapy water for the next washing cycle, and include sufficient detergent, which will act as a disinfectant, in the water. Dry the items using a clothes dryer. Wool clothing or uniforms may be rinsed with cold soapy water and then dry cleaned to remove and disinfect the stain.

Diaper changes

Care providers should use a new pair of appropriate gloves to change diapers. Gloves should be removed carefully and discarded in the appropriate receptacle. Hands should be washed immediately after changing the diaper. Disinfect the diapering surface afterwards. Cloth diapers should be washed in very hot water with detergent and a cup of bleach, and dried in a hot clothes dryer.

Cleaning sponges and mops

Sponges and mops that are used in a kitchen should not be used to clean body fluid spills or bathrooms. All sponges and mops should be disinfected routinely with a fresh bleach solution or another similar disinfectant.

Toilet/bedpan safety

It is safe to share toilets/toilet seats without special cleaning, unless the surface becomes contaminated with blood/OPIM. If this occurs, disinfect the surface by spraying on a solution of 1:10 bleach. Wearing gloves, wipe this away with disposable paper towels. Persons with open sores on their legs, thighs, or genitals should disinfect the toilet seat after each use.

Urinals and bedpans should not be shared between family members, unless they are thoroughly disinfected beforehand.

Thermometers

Electronic thermometers with disposable covers do not need to be cleaned between users, unless they are visibly soiled. Wipe the surface with a disinfectant solution if necessary. Glass thermometers should be washed with soap and warm water before and after each use. If it will be shared between family members, the thermometer should be soaked in 70-90% ethyl alcohol for 30 minutes, then rinsed under a stream of warm water between each use.

Pet care precautions

Certain animals may be health hazards for people with compromised immune systems. These animals include turtles, reptiles, birds, puppies and kittens under the age of eight months, wild animals, pets without current immunizations, and pets with illnesses of unknown origin.

Pet cages and cat litter boxes can harbor infectious, sometimes aerosolized organisms. These pet items should be cared for only by someone who is not immunocompromised.

If this is not possible, a mask with a sealable nose clip, and disposable latex gloves should be worn each time pet care is done. Follow all pet care with thorough handwashing.

Animals may carry a variety of diseases harmful to people with weakened immune systems. Some of these diseases may be passed by the animal licking their person's face or open wounds. Wash hands after stroking or other contact with pets. Keep cats' and dogs' nails trimmed. Wear latex gloves to clean up a pet's urine, feces, vomit, etc. The soiled area should be cleaned with a fresh solution of 1:10 bleach.

Pet food and water bowls should be regularly washed in warm, soapy water, and then rinsed. Cat litter boxes should be emptied out regularly and washed at least monthly.

Fish tanks should be kept clean. It is possible to order disposable latex "calf-birthing" gloves from a veterinarian for immunocompromised individuals. These gloves should offer protection from the organisms that are present in the fish tank.

Do not let your pet drink from the toilet, eat other animal's feces, or any type of dead animal or garbage. It is best to restrict cats to the indoors only. Dogs should be kept indoors or on a leash.

Many communities have volunteer groups and veterinarians that will assist people with HIV take care of their pets, if needed. Do not hesitate to consult your veterinarian with your questions.

Kitchen safety and proper food preparation skills

- Wash hands thoroughly before preparing food.
- Use care when tasting food. Use a clean spoon to taste food. Wash the spoon after using it once.
- Persons with HIV infection should avoid unpasteurized milk, raw eggs or products that contain raw eggs, raw fish, and cracked or non-intact eggs. Cook all meat, eggs and

Kitchen safety and proper food preparation skills continued

fish thoroughly to kill any organisms that may be present in them. Wash fruits and vegetables thoroughly before eating.

- Disinfect countertops, stoves, sinks, refrigerators, door handles and floors regularly. Use window screens to prevent insects from entering the room.
- Discard food that has expired or is past a safe storage date, shows signs of mold or smells bad.
- Use separate cutting boards for meat and for fruits and vegetables. Disinfect cutting boards frequently. Avoid wood cutting boards if possible.
- Kitchen garbage should be contained in a leak-proof, washable receptacle that is lined with a plastic bag. Seal the garbage liner bags and remove the garbage frequently.

Safe and Legal Disposal of Sharps

Disposal of syringes, needles and lancets is regulated. These items are called “sharps”. They can carry hepatitis, HIV and other germs that cause disease. Throwing them in the trash or flushing them down the toilet can pose health risks for others. Regulations governing disposal of sharps protect garbage and other utility workers and the general public from needle sticks and illness. There are different rules and disposal options for different circumstances. Contact your local health department to determine which option applies to your situation.

Found syringes in parks and other public locations

Used syringes that are tossed aside in parks, along roadsides, in laundromats, etc., present potential risk for accidental needlesticks. Risks for infection from a found syringe depends on a variety of factors, including the amount of time the syringe was left out, presence of blood and the type of injury (scratch versus puncture.) The risk of HIV infection to a health care worker from a needlestick containing HIV-positive blood is about 1 in 300, according to CDC data.

Anyone with an accidental needlestick requires an assessment by a medical professional. The medical professional should make certain that the injured person had been vaccinated against Hepatitis B and tetanus; s/he may also recommend testing for HIV, HCV, and HBV.

If a found syringe is handled, but no needle stick occurred, testing for HIV is not necessary. Handling a syringe is not a risk for HIV transmission.

Safe disposal of found syringes

Found used syringes or needles present a risk for HIV, HBV, HCV and other pathogens. Parents and other caregivers should make sure children understand they should never touch a found needle or syringe, but instead should immediately ask a responsible adult for help. For safe disposal of found syringes:

- **If you find a syringe or needle, do not pick it up with your bare hands.** Use a gloves and tongs, shovel or broom and dustpan to pick it up. Hold the needle away from your body.
- **Do not break the needle off from the syringe.** Needles can carry HIV, hepatitis and other germs. Please do not flush needles or syringes down the toilet!
- Place used sharps and syringes in a safe container: one with at least a one-inch opening and a lid that will seal tightly. An empty plastic laundry detergent, shampoo, pickle, oil or similar bottle or jar will work. If a glass jar is used, place it into a larger plastic bucket or container that has a tight-fitting lid. Soda cans are **not** good containers to use because people often try to recycle discarded cans.
- Carefully place the needle or syringe into the bottle or jar and seal the lid tightly. Tape it shut for added safety, and label it with the warning: “Sharps, Do Not Recycle”. The sealed container should not be placed where children might open it.
- Call your local health department to determine what disposal sites are available to you.