Exposure Control Manual for Blood Borne Pathogens

Department of Children’s Services
Office of Child Health

Effective Date: July 2015
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Policy

The Department of Children’s Services is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this goal, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to blood borne pathogens in accordance with OSHA standard 29 CFR 1910.1030, “Occupational Exposure to Blood borne Pathogens.”

The exposure control plan is a key document to assist our organization in implementing and ensuring compliance with the standard, thereby protecting our employees. The ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control including:
  - Universal precautions
  - Engineering and work practice controls
  - Housekeeping
  - Personal protective equipment
- Hepatitis B vaccination
- Post exposure evaluation and follow-up
- Procedure for evaluation circumstances surrounding exposure incidents
- Training
- Recordkeeping

Employees will receive an explanation of the ECP during their initial training session. It will also be reviewed in annual refresher training. All employees can review this plan at any time by locating it on the DCS internet server under Manuals.

Program Administration

The Nursing Director and the YDC Superintendent are responsible for implementation of the ECP. The Nursing Director will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures.

Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with procedures and work practices outlined in this ECP.

The Fire and Safety Office and Procurement Office will ensure that spill kits, sharps containers and any other necessary equipment are available to all DCS facilities/offices as well as individual employees.

The DCS Youth Development Center will have a procedure to obtain and maintain all necessary personal protective equipment (PPE), sharps containers, labels, and red bags as required by the standard.

The Health Administrators and representatives from the line staff shall participate in the evaluation, selection and use of new commercially available devices to be used for engineering controls and work practices.

DCS Personnel Department in central office will ensure that appropriate employee health and OSHA records are maintained.

DCS Training Division will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA and NIOSH representatives.
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**What is a Blood Borne Pathogen?**

Blood borne pathogens are microorganisms in human blood or certain body fluids that cause disease in humans. The most common ones are the hepatitis B virus (HBV) which causes a severe form of hepatitis I some or acts as a carrier in other, hepatitis C virus (HCV) which causes a chronic form of hepatitis and may not be detected for years, and the human immunodeficiency virus (HIV) which causes AIDS. Other blood borne diseases include malaria, brucellosis, and syphilis.

See hepatitis description sheet on page 31

**How do you become infected?**

Blood borne pathogens may be passed on when the microorganism enter the body through mucus membranes, through breaks in the skin or through needle sticks. In non-medical occupations, exposure is most common when an injured child/youth or other person’s blood contacts with a staff, or other person, rendering first aid or intervening to stop a youth altercation. Practicing universal precautions and wearing the proper personal protective equipment (PPE) will prevent exposure.

**What body fluids can be infectious?**

1. Blood
2. Semen
3. Vaginal secretions
4. Amniotic fluid
5. Saliva in dental procedures
6. Any body fluid that is visibly contaminated with blood
7. All body fluids in situations where it is difficult or impossible to differentiate between body fluids

**What bodily fluids are not infectious?**

1. Nasal secretions
2. Saliva
3. Sputum
4. Sweat
5. Tears
6. Urine
7. Feces
8. Vomit

Casual contact with children/youth does not pose a risk of infection with HIV, HBV or HCV. Handshaking, toughing, talking, visiting and other casual contact does not require any special infection control procedures since HIV, HBV and HCV are not spread through the air.
Determination of Employee Exposure

Category I
Involves tasks or procedures in which all or some employees have a reasonable likelihood of contact with blood or other potentially infectious materials. The use of job-appropriate personal protective equipment and other protective measures is required.

Category II
Tasks and work assignments involve no routine exposure to blood or other potentially infectious materials. Employee may be exposed due to any first aid rendered only as collateral duty responding solely to injuries. Appropriate personal protective devices must be available and these employees must be familiar with protective measures.

Category III
Tasks and work assignments involve no exposure to blood or other potentially infectious materials. No personal protective equipment needed.

<table>
<thead>
<tr>
<th>Job Classification</th>
<th>Category I</th>
<th>Category II</th>
<th>Category III</th>
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<tbody>
<tr>
<td></td>
<td>Tasks involve exposure to blood and OPIM</td>
<td>Tasks involve no routine exposure to blood or OPIM, but may be exposed due to accidents or injuries</td>
<td>Tasks/assignments require NO exposure to blood and OPIM</td>
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<td>Medical/Dental Personnel</td>
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<td>Security Personnel</td>
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<td>Children's Service Officer</td>
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<td>Transportation Staff</td>
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<td>Recreation Staff</td>
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<td>Food Service Staff</td>
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<td>Teachers/Teachers Aids</td>
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<td>Vocational Instructors</td>
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<td>Maintenance</td>
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<td>Housekeeping/Laundry</td>
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<td>Child Health Unit Staff</td>
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<tr>
<td>All Other Regional/Central Office Staff</td>
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Tasks and Procedures with an Exposed Risk

1. **Physical Examination/Treatments**
   a. Touching blood, body fluids, mucous membranes, or broken skin
   b. Application and removal of dressing on wounds
   c. Open wound care
   d. Skin lesion care
   e. Nasal and oral exams

2. **Laboratory Procedures**
   a. Phlebotomies
   b. Finger sticks
   c. Blood specimen handling

3. **Work Areas**
   a. Equipment and tools
   b. Knives and kitchen sharps
   c. Broken glass

4. **Waste Disposal**
   a. Regulated: sharps, needle and vacutainer handling, contaminated waste
   b. Contaminated dressings/bandages
   c. Contaminated receptacles

5. **Laundry**
   a. Contaminated linen and clothing

6. **Injuries and Accidents**
   a. Emergency response, assessment, and treatment of injuries
   b. Fights with blood present
   c. Cuts when handling tools and/or equipment in shop areas and kitchen
   d. Accidental injuries (broken bones scrapes, nosebleeds, or other incidents)
   e. Car accidents where staff or youth’s blood or other OPIM are present

7. **Decontamination Procedures**
   a. Tools, equipment, and medical devices
   b. Contaminated receptacles
   c. Work areas
   d. Blood spill sites

Casual contact with children/youth does not pose a risk of infection with HIV, HBV or HCV. Handshaking, touching, talking, visiting and other casual contact does not require any special infection control procedures since HIV, HBV and HCV are not spread through the air.
Methods of Implementation and Control

Unbroken skin forms an impervious barrier against blood borne pathogens. However, infected blood can enter your system through open sores, cuts, abrasions, acne, and any sort of damaged or broken skin such as sunburn or blisters. Blood borne pathogens may also be transmitted through the mucous membranes of the eyes, nose, and mouth.

Handwashing

Hand washing is one of the most important and easiest practices used to prevent transmission of blood borne pathogens. Hands or other exposed skin should be thoroughly washed as soon as possible following an exposure incident.

Procedure:
1. Wet hands first with water.
2. Apply an amount of soap sufficient for lather to cover all surfaces of hands.
3. Rub hands together well, covering all surfaces including fingers for a minimum of 20 seconds. Pay particular attention to fingertips, nails and jewelry.
4. Rinse thoroughly with running water.
5. Dry thoroughly with paper or cloth towel.

Frequent hand washing should become a habit for all personnel. If soap, water and towels are not available, an appropriate antiseptic hand cleaner or towelettes must be available.

Universal Precautions

Universal precautions are OSHA’s required method of control to protect employees from exposure to all human blood and OPIM. It is a concept of blood borne disease control which requires that all human blood and certain human body fluids be treated as if known to be infectious for HIV, HBV, HCV, or other blood borne pathogens.

Universal precautions are guidelines to help prevent the spread of infection. Infectious diseases are caused by viruses, bacteria, parasites, and fungi. These organisms can be spread from person to person through blood and other body secretions, droplets breathed, sneezed, or coughed out from the nose or mouth, skin-to-skin contact, and sexual contact. Universal precautions should be followed when you are exposed to blood, semen, vaginal secretions, and certain other body fluids that would only be encountered in the hospital setting (synovial fluid, cerebrospinal fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid).

Universal precautions do not apply to nasal secretions, sputum, sweat, tears, urine, feces, vomit, or saliva unless there is visible blood present.

1. Gloves – use latex gloves any time contact with blood or other body fluids may occur. Wash your hands before and after using gloves. Change gloves if they are torn or punctured, and after contact with each person. Do not reuse disposable gloves.
2. Hand washing – wash your hands immediately after taking off gloves. Wash your hands immediately before and after each contact with a child/youth.
3. Abrasions – if you have cuts or sores on your hands, cover these with a bandage or similar protection as an additional precaution before donning gloves.

Universal precautions help prevent infection through the use of protective barriers, such as gloves, masks, gowns, and other coverings, and safe work practices such as proper disposal of sharps and other contaminated items.
Spill Kits for Infectious Waste

Spill kits shall be available in every DCS facility and office. Each DCS facility and office will specify the location of spill kits and have that information readily available to all employees.

Directions for using spill kits:

1. Remove latex gloves from packet and place one on each hand.
2. Remove bag of absorbent material and open one end of zipper bag. Sprinkle absorbent material on spill and allow 2-3 minutes for powder to absorb spill.
3. Remove red disposal bag and tie. Open bag so that spill pickup can be deposited in red bag.
4. Take the small shovel from the bag. Using the instruction card and the shovel, pick up the spill, which has jelled, and deposit in the red bag along with the shovel and card.
5. After the spill has been removed, use disinfecting towelette to complete the clean-up. Wipe surface thoroughly to clean-up and to disinfect. Deposit used towelette in the red bag.
6. Use dry towel for final wipe to dry area. Deposit it in red bag.
7. Remove gloves and deposit them in the red bag.
8. Clean hands with moist towelettes and deposit in the red bag.
9. Twist top of red bag, fold, and close securely with bag tie.
10. Deposit red bag in nearest garbage container or infectious waste container depending upon your specific location and facility policy.

Clean-up in locations when spill kits are not available

Instructions:

1. Clean up blood and other body fluids promptly. Always use an approved disinfectant such as bleach added to water any time a surface is contaminated with blood or other body fluids. A solution of 5.25% sodium hypochlorite (household bleach) diluted between 1:10 and 1:100 with water. The standard recommendation is to use at least a quarter cup of bleach per one gallon of water. Be sure to wear gloves and any other necessary protective clothing to prevent contact with blood or other body fluids.
2. If you are cleaning up a spill of blood, you can carefully cover the spill with paper towels or rags, then gently pour the 10% solution of bleach over the towels or rags, and leave it for at least 10 minutes. This will help ensure that any blood borne pathogens are killed before you actually begin cleaning or wiping the material up. By covering the spill with paper towels or rags, you decrease the changes of causing a splash when you pour the bleach on it.
3. With gloves on, wipe up the infectious waste and the paper towel and place them in a plastic garbage bag. Wipe the surface with the 10% solution of bleach with more paper towels. Dispose of the paper towels into the same plastic garbage bag. Remove your gloves last and place them into the plastic garbage bag. Secure the bag with a tie and place in your covered garbage container.
4. Wash your hands thoroughly with soap and water for at least 2 minutes. Rinse under running water and dry your hands.
Engineering Controls and Work Practices

Health Care Workers

1. Routine hand washing is a basic infection control procedure. Hands should always be washed before and after contact with a child/youth. Wash hands before putting on gloves and after gloves have been removed.

2. All YDC health care workers shall routinely use appropriate barrier precautions to prevent skin and mucous membrane exposure when contact with blood or other body fluids is anticipated. Barriers include gloves, gowns, masks and goggles.

3. Gloves and other appropriate barrier precautions shall be used for touching blood and body fluids, mucous membranes, or non-intact skin, when there is surgical entry into tissues, when treating traumatic injuries, and for performing veni-puncture and other vascular access procedures.

4. Gloves shall be changed after contact with each child/youth.

5. Masks and protective eyewear for face shield should be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth, eyes and nose.

6. Gowns or aprons shall be worn during procedures that are likely to generate splashes of blood or other body fluids.

7. All health care workers shall take precautions to prevent injuries caused by needles, scalpels, razors, tools, and other sharp instruments or devices during use; when cleaning used tools and instruments, and during disposal of used needles.

8. To prevent needle stick injuries, needles shall not be recapped, purposely bent or broken by hand, removed from syringes, or otherwise manipulated by hand. Recapping or removal of contaminated needles or sharps should only be done if no other alternative is feasible and then only through use of a mechanical device or the one-handed technique.

9. After use, syringes, needles, scalpel blades, and other sharp items shall be placed in puncture resistant containers for disposal; these containers shall be located as close as practical to the use area.

10. Containers for sharps, shall be not only leak proof, but puncture resistant. The containers shall be maintained upright through use, easily accessible and not overfilled. They shall be stored in areas not accessible to youths.

11. Sharps containers are inspected and maintained or replaced by the Health Administrator, or designee, every month or whenever necessary to prevent overfilling.

12. Specimens of blood or other potentially infectious materials shall be placed in closable leak-proof containers and labeled or color-coded prior to being stored or transported.

13. All bins, pans and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potential infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

14. Food and drink shall not be stored in refrigerators, freezers, or cabinets where blood or other potentially infectious materials are present or other areas of possible contamination, such as countertops.

15. Health care workers who have lesions with exudates or weeping dermatitis shall refrain from all direct youth contact and from handling all equipment used by youths until the condition resolves.
Security/Treatment Providers

All personnel must follow universal precautions as a minimum requirement. Special care with children/youth shall be followed as listed below:

1. Gloves shall be worn when handling blood or body fluids as may be seen in a fight, when unintentional injuries occur, or when cleaning up areas where blood is present.

2. Disposable razors shall not to be shared by youths. Used razors are not considered infectious waste but each facility may discard them in sharps containers placed in areas not accessible to youths for security purposes.

3. Equipment that may become contaminated with blood or other infectious materials shall be checked routinely and decontaminated as necessary. This includes items such as basketballs, volleyballs, gym and other sports equipment.

Vocational Trainers/Teachers

All personnel must follow universal precautions as a minimum requirement. Special care with children/youth shall be followed as listed below:

1. Gloves shall be worn when handling blood or body fluids as may be seen in a fight or when cleaning up areas where blood is present.

2. Tools and equipment that may become contaminated with blood or other infectious materials should be checked routinely and decontaminated as necessary. This includes items in culinary arts program, gardening program, equipment in automobile shops, woodworking shops, metal shops, etc.

Family Service Workers/Transportation Staff

All personnel must follow universal precautions as a minimum requirement. Special care with children/youth shall be followed as listed below:

1. Gloves shall be worn when handling blood or body fluids as may be seen in a fight, when unintentional injuries occur, or when cleaning up areas where blood is present.

2. If you are transporting a child/youth and an incident occurs that results in contaminated surfaces, the area should be cleaned thoroughly with a bleach solution or germicide.

3. If the clothing of a child/youth being transported becomes stained, soiled or otherwise contaminated, the child/youth should be immediately returned to placement for a change of clothing.

Employees/staff

1. Staff needing to do self-puncture for blood sugar readings and insulin injection or other medical procedures during work hours should obtain a sharps container and keep it secured so it is not accessible to others.

2. Disposal of sharps containers can be done at a hazardous waste site.

3. Any blood spills should be cleaned with a spill kit or with a bleach solution or germicide.
Exposure Control Manual for Blood Borne Pathogens

Cardiopulmonary Resuscitation

CPR masks should be available in a Youth Development Center for use during mouth-to-mask ventilation. These masks provide diversion of the victim’s exhaled air and body fluids away from the rescuer and may be used by health care providers and other staff properly trained in their use. As an additional precaution, gloves should be worn because body fluids may be transferred to the rescuer’s hands.

Food Service

All DCS food service employees and youths assigned to the kitchen shall follow universal precautions as a minimum. Special care shall be taken in preparation of food as listed here:

1. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in the work areas where food is being prepared.
2. If protective clothing is penetrated by potentially infectious material, the garment shall be removed immediately or as soon as feasible.
3. Standard facility dishwashing is sufficient and special handling is not indicated for dishes and utensils. Gloves should be worn if dishes and utensils are visibly soiled with blood or body fluids.
4. Utility gloves (rubber household gloves) should be used for housekeeping chores or equipment cleaning involving potential blood contact. Utility gloves are to be used when cleaning knives, meat slicers, blenders, etc. and when cleaning countertops and other work areas that may have become contaminated with blood or other infectious material.

Housekeeping

1. Standard laundry detergents and wash/dry cycles are sufficient for student’s clothes, towels and bed linen. Any items contaminated with blood or body fluids should be handled with gloves and washed separately from other items.
2. Standard housekeeping procedures are adequate for routine cleaning of student rooms and living areas. Routine cleanup of student rooms following discharge or transfer is adequate unless there is visible contamination with blood or body fluids. Contaminated areas should be cleaned with a solution of bleach and water, 1:10 dilution is adequate. Gloves must be worn.
3. Broken glassware which may be contaminated shall not be picked up directly with the hands. Use mechanical means such as a brush, broom and dustpan, vacuum, tongs or cotton swabs.
Personal Protective Equipment (PPE)

Personal protective equipment is provided to employees who are exposed to blood and OPIM during their regular job activities at no cost and includes:

1. Gloves
2. Eye protection
3. Masks
4. Gowns
5. CPR masks

Employees who have medical problems that would interfere with their ability to use protective clothing and equipment must provide a written letter from their physician stating the reason. This letter is kept in the employee confidential medical file and a copy is sent to the YDC superintendent if the employee is a YDC staff.

PPE Location

Each DCS facility and office will specify the location of PPE and have that information readily available to all employees.

PPE Precautions

All employees using personal protective equipment must observe the following precautions:

1. Wash hands immediately or as soon as feasible after removing gloves or other PPE
2. Remove PPE after it becomes contaminated and before leaving the work area.
3. Used PPE may be disposed of in appropriate container for laundering, decontamination or disposal.
4. Wear appropriate gloves when it is reasonably anticipated that there may be hand contact with blood or other infectious material, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured or contaminated, or if their ability to function as a barrier is compromised.
5. Never wash or decontaminate disposable gloves for reuse.
6. Wear appropriate face and eye protection when splashed, sprays, spatters, or droplets of blood or other infectious material poses a hazard to the eye, nose, or mouth.
7. Remove immediately or as soon as feasible any garment contaminated by blood or other infectious material, in such a way as to avoid contact with the outer surfaces.

Procedure for handling used PPE

All protective equipment shall be removed immediately upon leaving the work area and place in an appropriately designated area or container for washing, decontamination or disposal.
Infectious Waste Disposal

Procedure for disposal of infectious waste shall follow DCS Policy 29.1, Monitoring and Conducting Sanitation, Environmental Conditions, Occupational Safety, and Fire Inspections in a YDC. State regulations, and procedures required by the contract with the company for waste disposal.

Proper Preparation of Infectious Waste

All infectious waste destined for disposal shall be placed in a closable, leak proof container or bag that is color-coded and labeled with fluorescent orange or orange-red with lettering and symbols in contrasting colors, using the biohazard label. Red bags or red containers may be substituted for labels on containers of infectious waste.

Warning labels (orange/red-orange) shall be affixed to containers of infectious waste, refrigerators and freezers containing blood or other hazardous materials. If outside contamination of a container or bag occurs or is likely to occur, then a second leak proof container or bag, which is closable and labeled or color-coded, shall be placed over the outside of the first and then closed to prevent spillage or protrusion of contents during handling, storage, shipping, or transport.

Containers for Sharps

The containers for sharps shall be not only leak proof, but puncture resistant. The containers shall be maintained upright through use, easily accessible and not overfilled. Before filled containers are moved, they will be closed immediately to prevent spillage or protrusion of contents. If any leakage is possible, they shall be placed in a second container that is leak proof and color-coded. Removable containers shall not be opened, emptied, or cleaned manually for reuse. They shall be stored in areas not accessible to youths.
**Hepatitis B Vaccination**

Employees working in congregate care settings (YDC)

All employees who have been identified as having a risk of exposure to blood or OPIM will be offered the hepatitis B vaccine series at no cost to the employee. The vaccine will be offered within 10 working days of their initial assignment to work.

The exceptions are the employees who have previously received the hepatitis B (HBV) vaccination series or unless antibody testing has revealed the employee is immune or the vaccine is contraindicated for medical reasons. If the employee initially declines the vaccine but at a later date, while still covered under this document, decides to accept the vaccine, it shall be provided at that time.

Employees receiving the vaccine will be required to sign the Hepatitis B Vaccine Consent Form. Those declining the vaccine will sign the Hepatitis B Declination Form.

The OSHA standard does not require pre or post testing after receiving the vaccine. Employees who want to know if they have built up antibodies prior to or after taking the vaccine, must go to their own physician or private lab to obtain these results.

**Field employees**

Hepatitis vaccination for field staff is on a voluntary basis. Employees desiring to receive the hepatitis B vaccine series shall use their private physician. Payment is the responsibility of the employee or can be through the employee’s health insurance carrier.
Exposure

Notify your supervisor immediately if the following incidents occur:

1. A needle stick injury or other cut or puncture from a contaminated item
2. Splashing of blood or other body fluids into mouth, eye or nose
3. Direct contact with a large amount of blood or other infectious fluids
4. Prolonged contact with blood or other body fluids

Wash the exposed skin area immediately with soap and water. If soap and water are not immediately available, use antiseptic towelettes or an antiseptic hand cleanser along with a clean cloth or paper towels. Washing with soap and running water still must be done as soon as possible. If a mucous membrane or eye exposure occurs, irrigate the affected area immediately with copious amounts of water at least 3 minutes.

Save any sharps or other items involved for possible testing. Take proper safety precautions with these items so others won’t be exposed.

Procedure to follow when an exposure occurs:

Fill out [Accident/Incident Traumatic Injury form, CS-0166](#). Anytime an employee is involved in an incident with a child/youth or co-worker where blood or body fluids are present and an exposure occurs, you must fill out this form. Special care should be given to the question regarding the presence of blood. All exposures shall be reported, and the Accident/Incident Traumatic Injury Report must be submitted, by the next working day to the OSHA representative in the facility. See Employee Exposure Procedures Attachment A

An immediate confidential medical evaluation and follow-up will be arranged. Following initial first aid, the following activities will be performed:

1. Document the routes of exposure and how the exposure occurred.

2. Identify and document the source individual (unless the employers can establish that identification is not feasible or prohibited by state or local law).

3. Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, hepatitis B (HBV) and hepatitis C (HCV) status.

4. After obtaining consent, collect exposed employee’s blood as soon as feasible after exposure incident, and test blood for HIV and hepatitis B (HBV) serological status.

5. If the source individual is a youth, he/she is asked to consent to blood work for HIV and Hepatitis B. If he/she consents, a release must be signed by youth giving permission to have blood work and permission for the results of a positive test to be shared with the exposed employee. Parental consent should be obtained for children under the age of 13 yrs. Parental consent is not needed for this procedure for children age 13 yrs. and older since it is covered by law on sexually transmitted disease.
6. If source individual refuses testing or they cannot be identified, the unvaccinated worker shall receive the hepatitis B vaccine series. Immune globulin administration should be considered on an individual basis if the source individual is known or suspected to be a high risk for HBV infection. Management and treatment, if any, of workers who receive an exposure from a source who refuses testing or who is not identifiable, will be individualized. Current recommendations by the United States Public Health Service will be followed in post-exposure prophylaxis.

7. Document that the source individual’s test results were conveyed to the employee’s health care provider.

8. If the source individual is already known to be HIV, hepatitis B (HBV) and/or hepatitis C (HCV) positive, new testing need not be performed.

9. Assure that the exposed employee is provided with the source individual’s test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).

10. If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, the baseline blood sample should be preserved for at least 90 days. If the exposed employee elects to have the baseline sample tested during this waiting period, the test should be performed as soon as feasible.

11. For any exposure from a source individual who has AIDS, who is found to be positive for HIV infection, or who refuses testing, the worker should be counseled regarding the risk of infection and evaluated clinically and serological for evidence of HIV infection as soon as possible after the exposure. In view of the evolving nature of HIV post-exposure management, the worker shall be informed of current United States Public Health Service Guidelines. The worker will be advised to seek medical evaluation for any acute febrile illness that occurs within 12 weeks after the exposure. Such an illness, particularly one characterized by fever, rash or lymphadenopathy may be indicative of recent HIV infection.

The evaluating physician of the exposed employee should have a copy of OSHA Standard on Occupational Exposure to Blood borne Pathogens, a description of the employee’s duties as they relate to the exposure, a description of any personal protective equipment that was used, documentation of the route(s) of exposure and the circumstances under which the exposure occurred, the results of blood tests when available, and all medical records relevant to the appropriate treatment of the employee, including vaccination status.
Post-Exposure Evaluation and Follow-up

As part of a confidential record, the circumstances of exposure will be recorded. Relevant information includes route(s) of exposure, the activity in which the worker was engaged at the time of exposure, the extent to which the appropriate work practices and protective equipment were used and a description of the source exposure shall be recorded. All reporting responsibilities under federal and state laws will be performed.

For an exposure to a source individual found to be positive for hepatitis B surface antigen, the worker who has not previously been given hepatitis B vaccine should receive the vaccine series. A single dose of hepatitis B immune globulin will be given if within seven days of exposure. If the employee has previously received the vaccine, they will be tested for antibody to hepatitis B surface antigen and will be given one dose of vaccine and one dose of immune globulin if the antibody level in the blood sample is inadequate. If the source individual is negative for surface antigen and the worker has not been vaccinated, this opportunity will be offered to provide hepatitis B vaccination.

Following the initial test at the time of exposure, seronegative worker should be retested every 6 (six) months up to one year after exposure, to determine whether transmission has occurred. During this follow-up period, exposed worker should follow the United States Public Health Service recommendations for preventing transmission of HIV. If source individual was tested and found to be seronegative, baseline testing of exposed worker with follow-up testing 12 weeks later may be performed if desired by the worker or recommended by the physician. If source individual cannot be identified, decisions regarding appropriate follow up should be individualized. Serological testing should be made available to all workers who may be concerned they had been infected with HIV through an occupational exposure.

The evaluating physician shall have his opinion in the employee’s confidential health record and a copy will be provided to the employee all within 15 days after the evaluation. This written opinion shall be limited to the following information:

1. The physician’s recommended limitation on employee’s use of personal protective clothing or equipment, the employee’s ability to receive vaccination and if the employee has received such vaccination.
2. A statement that the employee has been informed of the results of his/her evaluation and has been told of any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.
3. The written opinion will not reveal specific findings or diagnoses which are unrelated to the employee’s ability to wear protective clothing or equipment or receive vaccination. Such findings and diagnoses shall remain confidential.

The employee will be provided with a copy of the evaluating health care professional’s written opinion within 15 days after completion of the evaluation.
Procedures to Evaluate Circumstances Surrounding Exposure Incident

The circumstances of all exposure incidents should be reviewed to determine:

1. Engineering controls in use at the time
2. Work practices followed
3. A description of the device being used (including type and brand)
4. Protective equipment or clothing that was used at the time of the exposure incident (gloves, eye shields, etc.)
5. Location of the incident
6. Procedure being performed when the incident occurred
7. Employee’s training

Employee Training

All DCS employees shall participate in a training program at the time of their initial employment and annually thereafter at no cost to them and during working hours. Material appropriate in content and vocabulary to the educational level, literacy, and language background of the employees shall be used. The training program will contain a copy of the OSHA Standard on Occupational Exposure to Blood Borne Pathogens and an explanation of the content of the standards, including appendices.

The training program will include:

1. An explanation of the OSHA blood borne pathogen standard and how to obtain a copy.
2. An explanation of the exposure control plan and how to obtain the written plan.
3. A general explanation of the epidemiology and symptoms of blood borne diseases and their modes of transmission.
4. An explanation of methods to recognize tasks and other activities that may involve exposure to blood and other potentially infectious material, including what constitutes an exposure incident.
5. The use of practices, equipment and limitations that will prevent and reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment.
6. Information on the types, proper use, location, removal, handling, decontamination and/or disposal of personal protective clothing and equipment.
7. An explanation of universal precautions.
8. Direction on how to use spill kits and other modes of clean-up when spill kits are not available.
9. An explanation of the signs, labels and color coded items for bio-hazardous waste.
10. Information on the appropriate actions to take and persons to contact in an emergency.
11. An explanation of the procedure to follow when an occupational exposure occurs, including the method of reporting the incident and the medical follow-up available.
12. Information on the medical counseling that the employer is providing for the exposed individuals.
Recordkeeping

An accurate record for each employee subject to medical surveillance under this document will be maintained and will include:

1. Name and social security number of the individual
2. Copy of his/her hepatitis B vaccination status, including the dates of all the hepatitis B vaccinations and any medical records relative to the employee’s ability to receive vaccination, or a doctor’s statement as it relates to the employee’s inability to wear protective clothing and equipment and receive vaccination;
3. Copy of all results of physical examinations, medical testing, and follow-up procedures as they relate to the employee’s inability to wear protective clothing and equipment and receive vaccination;
4. Documentation of circumstances of occupational exposure incidents and/or a copy of the physician’s written opinion;
5. Copy of information provided to the physician as required by this document.

The employee’s medical records will be kept confidential and will not be disclosed or reported without the employee’s express written consent to any person within or outside the workplace except as required or permitted by law. These records will be maintained for at least the duration of employment, plus 30 years.

The training records shall include the dates of the training sessions, the contents of a summary of the training sessions, the names qualifications of persons conducting the training, and the names and job titles of all persons attending the training sessions. These records shall be maintained for 3 years.

All records required to be maintained shall be made available upon request to anyone as required or permitted by law. These records also will be provided upon request for examination and copying to the subject employee or to anyone having written consent of subject employee. Records will be transferred as required by federal law. Any other state or federal laws governing transfer of these records will be followed in accordance with those directives.

Sharps Injury Log

All percutaneous injuries from contaminated sharps are recorded in a Sharps Injury Log. All incidences must include at least:

1. Date of injury
2. Type and brand of the device involved (syringe, scalpel, etc.)
3. Work area where the incident occurred
4. Explanation of how the incident occurred.

This log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have any personal identifiers removed from the report.
Surveillance

A medical surveillance program should be in place for all employees covered by this document. All the medical evaluation procedures to be performed will be under the supervision of a licensed physician and all laboratory tests conducted by an accredited laboratory. All evaluations, procedures, vaccinations, and post-exposure evaluation and follow up, including prophylaxis, are provided without cost to the employee, at a reasonable time and place, and according to current standard recommendations for medical practice by the United States Public Health Service (USPHS) at the time these evaluations and procedures take place.
Employee Exposure Procedures

After the employee determines there has been an exposure they must fill out form **CS-0166, Accident/Incident/Traumatic Injury Report**. (This must be done and turned in to the OSHA representative within 24 hours.)

The OSHA representative will give employee forms **CS-0369, TDCS Exposure Incident Evaluation** and **CS-0370, TDCS Occupational Exposure to Blood Borne Pathogen Follow-up** to fill out and then they are distributed accordingly.

Human Resources will instruct the employee to be seen by a physician.

Information Provided to the Healthcare Professional

The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

1. A copy of regulation Blood Borne Standard 1910.1030;
2. A description of the exposed employee’s duties as they relate to the exposure incident;
3. Documentation of the route(s) of exposure and circumstances under which exposure occurred;
   - Results of the source individual's blood testing, if available; and
4. Medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

Listed below are the treatments and testing recommended by the US Health Service that the employer is required to pay at this time:

1. Baseline testing at time of exposure;
2. Follow up in 6 months;
3. Follow up in 1 year;
4. Post exposure prophylaxis as recommended by the U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post-Exposure Prophylaxis.

After testing and/or treatment are completed, the OSHA representative shall fill out form **TR-0354 form (Tennessee Department of Treasury Division of Claims Administration)** in detail. This is kept until the doctor’s bill comes in.

Information Provided to DCS From the Healthcare Professional

When the information from the physician comes in, send all of the original forms to Human Resources in Central Office for processing through the CorVel Corporation.

The packet sent to central office must contain:

1. **Form CS-0166, Accident/Incident/Traumatic Injury Report**
2. **Form CS-0369, TDCS Exposure Incident Evaluation**
3. **Form CS-0370, TDCS Occupational Exposure To Blood Borne Pathogen Follow-up**
4. **Form TR-0354, TN Dept. of Treasury, Division of Claims Administration - Blood Borne Pathogens**
5. Copy of physician's charges
6. Copy of lab work and charges
7. Any pertinent information regarding the incident
All forms must be filled out, completed, and signed where required. If the six months’ bill is the one submitted, mark “initial request” on form TR-0354, then when the one year re-testing is done, mark “follow-up.”

**Forms Web Links**

You may access forms located in this manual by clicking on the website listed below:

- **CS-0166, Accident/Incident/Traumatic Injury Report**
- **CS-0369, Exposure Incident Evaluation**
- **CS-0370, Occupational Exposure to Blood Borne Pathogen Follow-Up**
- **TR-0354, Blood Borne Pathogens**

**YDC TOSHA Representative:**

Wilder – Teresa Grice & Candice Starks
## Tennessee Department of Children’s Services

### Accident/Incident/Traumatic Injury Report

<table>
<thead>
<tr>
<th>Name</th>
<th>Birth Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employee</th>
<th>Student</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility:</th>
<th>Date of Occurrence:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location:</th>
<th>Time of Occurrence:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Type of injury/incident:**
  - Work Related
  - Sports
  - Use of Force
  - Other: _______________________

- **Was blood or body fluids present during incident:**
  - Yes
  - No

- **Property, equipment, machinery involvement (specify):**

### Subject’s Version (how situation occurred)

<table>
<thead>
<tr>
<th>Subject’s Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Witness’ version

<table>
<thead>
<tr>
<th>Witness’ version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Health Service Provider’s Report:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Date/time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Treatment (include date & time):**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Date/time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Disposition:

- Treated by DCS Health Service Staff
- Transported to ______________________________________ for outpatient care
- Transported to ______________________________________ for Inpatient Care
- Other, explain: _____________________________________

- Relative notified: Yes
- No

<table>
<thead>
<tr>
<th>Name of relative contacted</th>
<th>Date/time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Name:</td>
<td>Position:</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Occurrence Date:</td>
<td>Reported Date/Time:</td>
</tr>
<tr>
<td>Location/Facility:</td>
<td></td>
</tr>
</tbody>
</table>

Employee’s reported description to the exposure:

In relation to this exposure, engineering controls in place at this time were:
- [ ] Adequate  [ ] Inadequate  If inadequate, explain:

________________________________________________________________________________
________________________________________________________________________________

In relation to this exposure, work practice controls in place at this time were:
- [ ] Adequate  [ ] Inadequate  If inadequate, explain:

________________________________________________________________________________

In relation to this exposure, personal protective equipment in place at this time was:
- [ ] Adequate  [ ] Inadequate  If inadequate, explain:

________________________________________________________________________________

Evaluate cause of exposure:
- [ ] Lack of resource (policy, equipment, control)
- [ ] Lack of employee knowledge (procedures, policies)
- [ ] Failure to follow procedures or policies
- [ ] Cause beyond employer/employee control (example: combative child/youth)
- [ ] Other

(explain): _____________________________________________________________________

Recommendations to prevent future exposure:

CS-0369
**Employee’s Name:**

<table>
<thead>
<tr>
<th>Social Security #: - -</th>
</tr>
</thead>
</table>

**Position:**

<table>
<thead>
<tr>
<th>Date of Occurrence:</th>
</tr>
</thead>
</table>

**Location/Facility:**

---

**Employee’s Reported Description of the Exposure (include circumstances and route of exposure):**

---

**Contact Source Information:**

- **Contact Source:**
  - [ ] Known
  - [ ] Unknown

- **Contact source laboratory test results:**
  - [ ] HBsAG
  - [ ] HIV
  - [ ] Other: ________________________

---

**Employee Information:**

- [ ] I have not been vaccinated
- [ ] I have been vaccinated: Date: _______________
- [ ] I have received booster vaccination: Date: _______________

- **Serum Antibody Titer:**
  - Date: _______________  Results: ____________________

- **TB Screening:**
  - Date: _______________  Results: __________________

- **Other Employee Health Information:**
  - _______________________________________________

---

**Consent for HIV and HBV Testing**

I, _______________________________________, consent to having a blood sample drawn for the purpose of testing for HBV and HIV, as a result of occupational exposure to blood borne pathogens.

| Signature __________________________________ Date _______________
|---------------------------------------------------------------|

**Physician Statement:** (Include recommendations regarding indications and receipt of Hepatitis B Vaccine, a statement that the employee has been informed of results evaluation, information regarding other medical conditions resulting from this incident).

|______________________________________________________________________________________|
|______________________________________________________________________________________|

| Signature __________________________________ Date _______________
|---------------------------------------------------------------|

---

CS-0370
Blood Borne Pathogens

**Initial Request**

1. Department: ______________________________________   Budget Code: ____________________________

2. Employee Name: ____________________________________________________________________________

3. SSN: ______________________________________________________________________________________

4. Date of Incident________________________________5. Date Reported to Employer: _____________________

6. Exposure Type (check one):
   a. Fluid to fluid contact with known carrier
   b. Fluid to fluid contact with unknown carrier
   c. Potential exposure to known or unknown carrier

   If 6a is checked, this should be filed as worker’s compensation. Please refer employee to personnel office for further instructions on filing a worker’s compensation claim.

7. Please provide a brief explanation of the incident, including what job duties the employee was providing at the time.

____________________________________________________________________________________________

____________________________________________________________________________________________

____________________________________________________________________________________________

____________________________________________________________________________________________

8. Attach original or copy of itemized bill or invoice and mail to: Sedgwick Claims Management Services: Knoxville

   ATTN: Holly Peck

   P.O. Box 14484

   Lexington, KY 40512-4484

   If you have any questions concerning the filing procedures or status of a payment request, direct all inquiries to Holly Peck at 1-800-526-2305, and reference “blood borne pathogens incident”. Do not refer to this as a worker’s compensation claim.

   I have reviewed this incident and confirm that it meets the requirements for payment by the state in accordance with OSHA regulations.

____________________________________________________________________________________________

Date                                                                                     Signature of Exposure Control Representative

____________________________________________________________________________________________

Date                                                                                     Signature of Supervisory Representative

____________________________________________________________________________________________

Location and phone number

Location and phone number

TR-0354
Information Provided to the Healthcare Professional

1910.1030(f)(4)(i)
The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

1910.1030(f)(4)(ii)
The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

1910.1030(f)(4)(ii)(A)
A copy of this regulation;

1910.1030(f)(4)(ii)(B)
A description of the exposed employee's duties as they relate to the exposure incident;

1910.1030(f)(4)(ii)(C)
Documentation of the route(s) of exposure and circumstances under which exposure occurred;

1910.1030(f)(4)(ii)(D)
Results of the source individual's blood testing, if available; and

1910.1030(f)(4)(ii)(E)
All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

Healthcare Professional's Written Opinion

1910.1030(f)(5)
The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

1910.1030(f)(5)(i)
The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

1910.1030(f)(5)(ii)
The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

1910.1030(f)(5)(ii)(A)
That the employee has been informed of the results of the evaluation; and

1910.1030(f)(5)(ii)(B)
That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

1910.1030(f)(5)(iii)
All other findings or diagnoses shall remain confidential and shall not be included in the written report.
### Glossary of Terms

**Blood:** Means human blood, human blood components, and products made from human blood.

**Blood Borne Pathogens:** Means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to: Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) and Human Immuno-deficiency Virus (HIV).

**Contaminated:** Means the presence, or the reasonably anticipated presence, of blood or other potentially infectious materials on an item or surface.

**Contaminated Laundry:** Means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

**Contaminated Sharps:** Means any contaminated object that can penetrate the skin including, but not limited to, needles, razors, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

**Decontamination:** Means the use of physical or chemical means to remove, inactivate, or destroy blood borne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles, and the surface of item is rendered safe for handling, use, or disposal.

**Engineering Controls:** Means controls (e.g. sharps disposal containers, self-sheathing needles) that isolate or remove the blood borne pathogens hazard from the workplace.

**Exposure Incident:** Means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious material that result from the performance of an employee’s duties.

**Hand washing Facilities:** Means a facility providing an adequate supply of running potable water, soap and single-use towels or hot air drying machines.

**Licensed Healthcare Professional:** Means a person whose legally permitted scope of practice allows him or her to independently perform the activities related to Hepatitis B vaccination and post-exposure evaluation and follow-up.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBV</td>
<td>Means Hepatitis B Virus</td>
</tr>
<tr>
<td>HCV</td>
<td>Means Hepatitis C Virus</td>
</tr>
<tr>
<td>HIV</td>
<td>Means Human Immunodeficiency Virus</td>
</tr>
</tbody>
</table>

**Occupational Exposure:**
Means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee’s duties.

**Other Potentially Infectious Materials:**
Means (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, 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. (2) Any unfixed tissue or other (other than intact skin) from a human (living or dead). (3) HIV-containing cells or tissue cultures, organ 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.

**Parenteral:**
Means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

**Personal Protective Equipment:**
Means specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g. uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

**Regulated Waste:**
Means liquid or semi-liquid blood or other potentially infectious material in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials that are capable of releasing these materials during handling, contaminated sharps, and pathological and microbiological wastes containing blood or other potentially infectious materials.

**Source Individual:**
Means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to an employee.

**Sterilize:**
Means the use of a physical or chemical procedure to destroy all microbial life, including highly resistant bacterial endospores.
Universal Precautions: Means an approach to infection control in which all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other blood borne pathogens.

Work Practice Controls: Means controls that reduce the likelihood of exposure by altering the manner in which a task is performed.
<table>
<thead>
<tr>
<th>What is it?</th>
<th>Incubation Period</th>
<th>How is it Spread?</th>
<th>Symptoms</th>
<th>Treatment of Chronic Disease</th>
<th>Vaccine</th>
<th>Who is at Risk?</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAV is a virus that causes inflammation of the liver. It does not lead to chronic disease.</td>
<td>2 to 7 weeks. Average 4 weeks.</td>
<td>Transmitted by fecal/oral (anal/oral sex) route, close person to person contact or ingestion of contaminated food and water. Hand to mouth after contact with feces, such as changing diapers.</td>
<td>Children may have none. Adults usually have light stools, dark urine, fatigue, fever, nausea, vomiting, abdominal pain, and jaundice.</td>
<td>Not applicable</td>
<td>Peginterferon, entecavir, and tenofovir are first-line treatment options.</td>
<td>Household or sexual contact with an infected person or living in an area with HAV outbreak. Travelers to developing countries, persons engaging in anal/oral sex and injection drug users.</td>
<td>Vaccination or Immune Globulin within 2 weeks of exposure. Washing hands with soap and water after going to the toilet. Use household bleach (10 parts water to 1 part bleach) to clean surfaces contaminated with feces, such as changing tables. Safer sex.</td>
</tr>
<tr>
<td>HBV is a virus that causes inflammation of the liver. It can cause liver cell damage, leading to cirrhosis and cancer.</td>
<td>6 to 23 weeks. Average 17 weeks.</td>
<td>Contact with infected blood, seminal fluid, vaginal secretions, contaminated needles, including tattoo and body-piercing tools. Infected mother to newborn. Human bite. Sexual contact.</td>
<td>May have none. Some persons have mild flu like symptoms, dark urine, light stools, jaundice, fatigue and fever.</td>
<td>Peginterferon with ribavirin and serine protease adjuncts.</td>
<td>Peginterferon with varying success.</td>
<td>Infants born to infected mother, having sex with an infected person or multiple partners, injection drug users, emergency responders, healthcare workers, persons engaging in anal/oral sex, and hemodialysis patients.</td>
<td>Vaccination provides protection for 20 plus years. Clean up blood with household bleach and wear protective gloves. Do not share razors, toothbrushes, or needles. Safer sex. Hepatitis B immune globulin for vaccine non-responders after exposure.</td>
</tr>
<tr>
<td>HCV is a virus that causes inflammation of the liver. It can cause liver cell damage, leading to cirrhosis and cancer.</td>
<td>2 to 25 weeks. Average 17 weeks.</td>
<td>Contact with infected blood, contaminated IV needles, razors, and tattoo and body-piercing tools. Infected mother to newborn. Not easily spread through sex.</td>
<td>Same as HBV</td>
<td>Peginterferon with varying success.</td>
<td>None for HCV. Should receive Hepatitis A and B vaccines.</td>
<td>Infected blood, seminal fluid, vaginal secretions, blood, seminal fluid, and tattoo and body-piercing tools.</td>
<td>Clean up spilled blood with household bleach. Wear gloves when touching blood. Do not share razors, toothbrushes, or needles with anyone. Safer sex.</td>
</tr>
<tr>
<td>HDV is a virus that causes inflammation of the liver only in those persons with HBV. It can cause cirrhosis and cancer.</td>
<td>2 to 8 weeks.</td>
<td>Contact with infected blood, contaminated needles. Sexual contact with HDV infected person.</td>
<td>Same as HAV</td>
<td>Peginterferon with varying success.</td>
<td>HBV vaccine prevents HDV infection.</td>
<td>Injection drug users, persons engaging in anal/oral sex and those having sex with an HDV infected patient.</td>
<td>Hepatitis B vaccine to prevent HBV/HDV infection. Safer sex.</td>
</tr>
<tr>
<td>HEV is a virus that causes inflammation of the liver. It is rare in the U.S. It can cause chronic disease.</td>
<td>2 to 9 weeks. Average 40 days.</td>
<td>Transmitted through fecal/oral route. Outbreaks associated with contaminated water supply in other countries.</td>
<td></td>
<td>Ribavirin for chronic hepatitis E but needs confirmation</td>
<td>None commercially available</td>
<td>Travelers to developing countries, especially pregnant women. Close contact with swine and ingestion of pork products, venison.</td>
<td>Avoid drinking or using potentially contaminated water, or fruits and vegetables.</td>
</tr>
</tbody>
</table>

**THE ABC'S OF VIRAL HEPATITIS**

<table>
<thead>
<tr>
<th>Hepatitis A (HAV)</th>
<th>Hepatitis B (HBV)</th>
<th>Hepatitis C (HCV)</th>
<th>Hepatitis D (HDV)</th>
<th>Hepatitis E (HEV)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is it?</strong></td>
<td>HAV is a virus that causes inflammation of the liver. It does not lead to chronic disease.</td>
<td>HBV is a virus that causes inflammation of the liver. It can cause liver cell damage, leading to cirrhosis and cancer.</td>
<td>HCV is a virus that causes inflammation of the liver. It can cause liver cell damage, leading to cirrhosis and cancer.</td>
<td>HDV is a virus that causes inflammation of the liver only in those persons with HBV. It can cause cirrhosis and cancer.</td>
</tr>
<tr>
<td><strong>Incubation Period</strong></td>
<td>2 to 7 weeks. Average 4 weeks.</td>
<td>6 to 23 weeks. Average 17 weeks.</td>
<td>2 to 25 weeks. Average 17 weeks.</td>
<td>2 to 8 weeks.</td>
</tr>
<tr>
<td><strong>How is it Spread?</strong></td>
<td>Transmitted by fecal/oral (anal/oral sex) route, close person to person contact or ingestion of contaminated food and water. Hand to mouth after contact with feces, such as changing diapers.</td>
<td>Contact with infected blood, seminal fluid, vaginal secretions, contaminated needles, including tattoo and body-piercing tools. Infected mother to newborn. Human bite. Sexual contact.</td>
<td>Contact with infected blood, contaminated IV needles, razors, and tattoo and body-piercing tools. Infected mother to newborn. Not easily spread through sex.</td>
<td>Contact with infected blood, contaminated needles. Sexual contact with HDV infected person.</td>
</tr>
<tr>
<td><strong>Symptoms</strong></td>
<td>Children may have none. Adults usually have light stools, dark urine, fatigue, fever, nausea, vomiting, abdominal pain, and jaundice.</td>
<td>May have none. Some persons have mild flu like symptoms, dark urine, light stools, jaundice, fatigue and fever.</td>
<td>Same as HBV</td>
<td>Same as HBV</td>
</tr>
<tr>
<td><strong>Treatment of Chronic Disease</strong></td>
<td>Not applicable</td>
<td>Peginterferon, entecavir, and tenofovir are first-line treatment options.</td>
<td>Peginterferon with ribavirin and serine protease adjuncts.</td>
<td>Peginterferon with varying success.</td>
</tr>
<tr>
<td><strong>Vaccine</strong></td>
<td>Two doses of vaccine to anyone over 1 year of age.</td>
<td>Three doses may be given to persons of any age.</td>
<td>None for HCV. Should receive Hepatitis A and B vaccines.</td>
<td>HBV vaccine prevents HDV infection.</td>
</tr>
<tr>
<td><strong>Who is at Risk?</strong></td>
<td>Household or sexual contact with an infected person or living in an area with HAV outbreak. Travelers to developing countries, persons engaging in anal/oral sex and injection drug users.</td>
<td>Infants born to infected mother, having sex with an infected person or multiple partners, injection drug users, emergency responders, healthcare workers, persons engaging in anal/oral sex, and hemodialysis patients.</td>
<td>Blood transfusion recipients before 1992, healthcare workers, injection drug users, hemodialysis patients, infants born to infected mother, multiple sex partners.</td>
<td>Injection drug users, persons engaging in anal/oral sex and those having sex with an HDV infected patient.</td>
</tr>
<tr>
<td><strong>Prevention</strong></td>
<td>Vaccination or Immune Globulin within 2 weeks of exposure. Washing hands with soap and water after going to the toilet. Use household bleach (10 parts water to 1 part bleach) to clean surfaces contaminated with feces, such as changing tables. Safer sex.</td>
<td>Vaccination provides protection for 20 plus years. Clean up blood with household bleach and wear protective gloves. Do not share razors, toothbrushes, or needles. Safer sex. Hepatitis B immune globulin for vaccine non-responders after exposure.</td>
<td>Clean up spilled blood with household bleach. Wear gloves when touching blood. Do not share razors, toothbrushes, or needles with anyone. Safer sex.</td>
<td>Hepatitis B vaccine to prevent HBV/HDV infection. Safer sex.</td>
</tr>
</tbody>
</table>