

# Children’s Hospital and Health System Infection Prevention and Control Policy and Procedure

This policy applies to the following entity(s):

Children’s Hospital and Health System

## SUBJECT: Blood and Body Fluid Post Exposure Procedure

This plan is in accordance with the OSHA “Occupational Exposure to Bloodborne Pathogens” standard, 29 CFR 1910.1030 of December 6, 1991 and January 18, 2001 and encompasses the Enforcement Procedures update CPL 2.103 of November 6, 2000. Also see Infection Control Policy and Procedure Blood Borne Pathogen Exposure Control Plan.

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### Definitions:

**A significant exposure** is defined as a percutaneous injury (e.g. a needlestick or cut with a sharp object) or contact of mucous membranes or non-intact skin (e.g. exposed skin that is chapped, abraded, or afflicted with dermatitis) with another person’s blood, tissue, or other body fluids that are potentially infectious. Blood is the single most important source of Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), and Human Immunodeficiency Virus (HIV). It is also the source of many other diseases.

**Other potentially infectious material**, often referred to as **OPIM**, including semen, vaginal secretions, and cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids. Feces, nasal secretions, sputum, saliva, sweat, tears, urine, vomitus, and human breast milk are considered low risk to the health care worker for bloodborne pathogens unless they contain visible blood. If there is any uncertainty about whether or not blood is visible in these secretions, blood will be considered present and potentially infectious.

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**An exposure** that may place a staff member at risk for HIV or other Blood Borne infections is defined as the following:

- (1) any type of a needlestick or poke/cut from a sharp object contaminated with blood or infectious secretions listed above;
- (2) contact of blood or infectious secretions with mucous membrane or non-intact skin, or
- (3) contact with intact skin when the duration of contact is prolonged for several minutes or more; or
- (4) if the exposure involves an extensive area.

The risk of infection and decision to offer post exposure prophylaxis (PEP) is evaluated by assessing several factors, including: (1) *nature* of the exposure (e.g. needlestick or sharp, mucous membrane, open wound, etc.); (2) *severity* of the exposure (e.g. was the needle a hollow bore vs. a solid needle or was it a deep puncture vs. superficial, etc.); (3) *amount* and *type* of blood or body fluid involved in the exposure; (4) *duration* of contact and *condition* of the skin (intact, abraded, etc.) (5) *infectivity* of the exposure source (i.e. was the source positive for HBV, HCV, or HIV); (6) *pregnancy state* of an exposed female; (7) resistance of the HIV virus (if present and if known to be resistant to PEP antiviral drugs), and (8) a *higher titer* of HIV, if present in the source person's blood late in the course of AIDS or from other factors.

Information about primary HIV infection indicates that systemic infection does not occur immediately, leaving a brief "window of opportunity" during which treatment with anti-viral medication may maximize modification of viral replication. Treatment should be initiated within hours after exposure to take advantage of that window. PEP is most effective if implemented as soon after the exposure as possible.

## **POLICY**

The purpose of this policy and procedure is to:

- To provide information about the risks of exposure to blood and other potentially infectious material (OPIM) according to the Centers for Disease Control and Prevention (CDC).
  - To provide guidance for staff for blood and body fluid exposure follow up care.
  - To provide education regarding HIV prophylaxis and monitoring following exposure.
1. All staff with potential for exposure to blood and body fluids will be educated upon hire and annually regarding blood borne pathogens and the exposure control plan.
  2. All staff with potential for exposure to blood and body fluids will be required to adhere to:
    - The Infection Prevention and Control "Standard Precautions" P&P
    - The Infection Prevention and Control "Bloodborne Pathogen (BBP) Exposure Control Plan (ECP)" P&P
    - The Patient Care "Hand Hygiene" P&P.
  3. All staff exposures to blood and body fluids will be evaluated for risk and appropriate follow-up by a health care professional knowledgeable about the current management of exposures and prophylaxis. Prompt access to confidential post exposure evaluations, counseling and follow-up is available 24 hours per day, seven days a week.
  4. All occupational exposures are considered to be urgent medical concerns for appropriate and timely follow up. They should be reported promptly to Employee Health and Wellness during normal

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business hours (7:30-4:00, Monday through Friday) or the Patient Care Director/Manager/Supervisor on Call or designee after hours.

5. The exposed employee is responsible for completing an incident report in ReadySet ([www.chw.readysetsecure.com](http://www.chw.readysetsecure.com)). The Incident Report must be completed as soon as possible or by the end of the employee's work shift. If the employee needs assistance reporting the incident, they may ask their supervisor, leader or Employee Health and Wellness (EHW).
6. Non-employees and temporary staff should complete a MIDAS report located on the CHW intranet Quick Links, Safety/Incident Report for recording a non-employee incident to notify Risk Management before the end of that work shift. Non-employees and temporary staff may also use EHW as a resource, but should also contact their employer or responsible agency immediately following an exposure. Froedtert and MCW staff should contact 414-805-4444 for follow up instructions. A non-employee/temporary staff member's agency will provide guidance for follow up care. Froedtert Hospital's Emergency Department, or the nearest emergency room may be convenient for immediate follow-up if the temporary staff member desires to utilize such emergency room services upon approval of the Agency. Charges will be billed to the appropriate agency.

## **PROCEDURE**

### **I. If a Healthcare Worker has a Significant Exposure to Blood or Body Fluids (see Definitions)**

- A. Following an exposure to mucous membranes (i.e. eyes, nose, or mouth), flush *thoroughly* with water.
- B. Following a needlestick, sharps, or other open skin exposure, wash *thoroughly* with soap and water for at least 15 seconds.
- C. Report the accident immediately to the department supervisor, or to the Patient Care Director/Manager/Supervisor on Call during off shifts.
- D. Call EHW immediately between the hours of 0730-1600, Monday-Friday at 414-266-8616. If EHW is closed, the exposed healthcare worker should contact the Patient Care Director/Manager/Supervisor on Call or designee, or may call the Blood and Body Fluid Exposure Hotline at 414-266-1526 for direction.
- E. Complete an incident report in ReadySet ([www.chw.readysetsecure.com](http://www.chw.readysetsecure.com)).
- F. If a patient was exposed to the healthcare workers blood, a patient incident report is to be completed and the patient's physician notified. Complete a MIDAS report located on the CHW intranet Children's Connect, Employee Resources>Safety Event Reports> Report a patient or non-patient (patient, physician or visitor) safety event. Contact Risk Management before the end of that work shift. See section II B regarding tests to be drawn for the source (in this case the staff) and baseline tests for the exposed person (in this case, the patient).

### **II. Evaluation of the Exposure:**

- A. Screening following a staff blood/body fluid exposure will follow the current recommendations of the U.S. Public Health Service (USPHS) published by the CDC.
- B. The following steps will be taken when EHW is **open**:

1. If a source is known, the source person's records will be reviewed immediately for laboratory evidence of HIV, HBV and HCV.
2. If the source person's status is negative for HIV, HBV and HBC, and has no clinical evidence of symptoms of the diseases, no further testing is deemed necessary.
3. If the source person's HIV, HBV or HBC status is unknown, testing is needed. The EHW nurse will coordinate obtaining HIV testing of the source and work with the nurse caring for the patient to obtain a physician order for the following tests in EPIC as soon as possible.
  - HIV 1/2 Ag Ab w/Reflex
  - HBsAg (Hepatitis B Surface Antigen)
  - Anti-HCV (Hepatitis C Antibody)

No written parent consent is needed for testing, but the source patient /parent/ legal guardian must be notified an exposure incident has taken place, and post-exposure testing is being done. Document verbal consent in EPIC. If the source patient is not available for testing, but blood is on hand in the lab, the EHW nurse will obtain a [Non-consenting HIV Testing certification](#) from a physician, and work with the lab and the nurse caring for the patient to enter source patient orders in EPIC. Provide with a copy of the HIV Test Teaching Sheet. See Appendix B.

4. HIV results may be available within 1-2 hours after testing.
  - a. If the source person's HIV result is reactive, the EHW Nurse will direct the exposed person to Froedtert Emergency Department or if off-site, a community Occupational Medicine clinic or Emergency Department for immediate evaluation, baseline labs and prophylaxis for the exposed staff member. A four day initial supply of prophylactic medication is authorized until follow up testing verifies if additional medication is needed. Counseling of the exposed staff will also be done regarding protocols and guidance about the disease process and medications. If the staff member desires, an appointment will be made as soon as possible with an Infectious Disease specialist or other Health Care Provider knowledgeable about the disease, prevention, and follow-up.
  - b. If the source patient's HIV result is nonreactive, no immediate follow up medical care or baseline blood titers are needed for the exposed person. EHW will obtain results of the source patient Hepatitis B Ag and Hepatitis C Ab testing. Results for Hepatitis B or C are typically available the next business day.
    - i. If source patient HIV, Hepatitis B Ag and Hepatitis C Ab test results are all negative/nonreactive, no further testing or follow up medical evaluation is needed for the exposed person.
    - ii. If the source patient results for HIV are non-reactive but either Hepatitis B or C are positive, appropriate follow-up in accordance with the USPHS recommendations will be offered. If the exposed person is susceptible, EHW will consult as soon as possible with an Infectious Disease specialist or other Healthcare Provider knowledgeable about the disease, prevention and follow-up. Baseline labs for the exposed person are to be ordered and drawn.
5. If the source is unknown or the source is known but testing cannot be obtained, assess information about
  - a. where and under what circumstances the exposure occurred,
  - b. size and type of device if known, (forward photos to EHW if available)
  - c. what the device was used for if known

- d. save the device in a secure, puncture resistant container until leader follow up is completed, photos obtained, then dispose according to policy
  - e. any other pertinent information that can be acquired.
6. If EHW determines that the circumstances of the exposure are high risk, or if the exposed person is concerned and is requesting medical follow up, the exposed person will be directed to seek care at Froedtert Emergency Department if working at the Milwaukee campus, or if working elsewhere, at a local ER or Occupational Medicine clinic for medical evaluation and possible treatment.
    - a. An algorithm published by the CDC is frequently used to guide decisions about offering post exposure prophylaxis to HIV or HBV by the treating physician. Prophylaxis against HCV post exposure is not recommended by the CDC at this time.
    - b. The employee may find information in ReadySet ([www.chw.readysetsecure.com](http://www.chw.readysetsecure.com)) about their Hepatitis B immunity status and Tdap status prior to seeking medical care.
  7. For subsequent testing and care when the source patient is unknown, unable to be tested, or if the source patient is identified to have positive results (infected with HIV, Hepatitis B or Hepatitis C), the exposed staff member will be offered HIV, HCV, ALT (and HBsAg testing if indicated) at baseline, 6 weeks, 12 weeks and 6 months post exposure in accordance with USPHS recommendations. Any abnormal results will be reason for scheduling an appointment for the exposed person as soon as possible with an Infectious Disease specialist or other Health Care Provider knowledgeable about the disease, prevention, and follow-up.
- C. When the EHW department is **closed**, consult the Significant Exposure Packet (Purple Packet) which consists of all of the forms needed for follow-up. These packets are kept in the Patient Care Director/Manager/Supervisor on Call's Office in the hospital setting, and in departments where there is risk of blood or body fluid exposures and EHW. Copies of the packet forms are located in Children's Connect>Employee Resources >Total Rewards >Personal Well Being >Blood and Body Fluid Exposure Resources.
1. The Patient Care Director/Manager/Supervisor on Call or designee will assist the staff member that has had a significant exposure to complete all items listed in section I, Procedure items A-F above if not already complete.
  2. If the source patient is known, no written parent consent is needed for testing, but the source patient /parent/ legal guardian must be notified an exposure incident has taken place, and post-exposure testing is being done. Document verbal consent in EPIC. The Patient Care Director/Manager/Supervisor on Call or designee will assist with notifying the family if necessary. Provide with a copy of the HIV Test Teaching Sheet. See Appendix B.
  3. If after 45 minutes, we have been unsuccessful in reaching the source patient/parent/legal guardian patient to obtain HIV Consent, or the Parent/Guardian refuses HIV testing, call the Laboratory to identify if blood has already been drawn for another purpose and is available. Obtain a [Non-consenting HIV Testing certification](#) from a physician, and work with the lab and the nurse caring for the patient to enter source patient orders in EPIC.
  4. Unless prior test results are available, the source patient should have orders placed in EPIC and then be drawn as soon as possible for:
    - HIV ½ Ab p24 Ag w/ Reflex
    - HBsAg (Hepatitis B Surface Antigen)
    - Anti-HCV (Hepatitis C Antibody)

Note: EHW will be able to transfer charges so that the patient is not charged for these tests.

5. HIV test results may be available within 1-2 hours after testing. The Patient Care Director/Manager/Supervisor on Call or designee will obtain the results of the HIV testing as soon as possible and contact the exposed person in order to direct next steps for care in a timely way.
  - a. If the source is unknown, or the source is known HIV positive or if the HIV result is reactive, the Patient Care Director/Manager/Supervisor on Call or designee will send the exposed staff to Froedtert Emergency Department or if working off campus, to a local ER or Occ. Med clinic for medical evaluation and treatment using the Significant Exposure Packet..
  - b. If the source patient's HIV results are negative/ nonreactive, no emergency room care is needed. It is the responsibility of the exposed employee to contact EHW on the next business day to discuss the incident and additional follow up activities.
6. The Patient Care Director/Manager/Supervisor on Call or designee should direct the staff member to complete an Incident Report in ReadySet ([www.chw.readysetsecure.com](http://www.chw.readysetsecure.com)) or if not a Children's-paid employee, complete a MIDAS report as a non-patient event and advise the staff member to follow up with EHW on the next business day.
7. When an exposed person is directed to Froedtert ED, the ED will evaluate and treat the exposed staff member and complete the Significant Exposure packet. An algorithm published by the CDC is frequently used to guide decisions about offering post exposure prophylaxis to HIV or HBV by the treating physician. Prophylaxis against HCV post exposure is not recommended by the CDC at this time. Baseline labs will be drawn at the EDTC for the exposed staff:
  - HIV
  - Hepatitis B Surface Antibody (this is not needed if prior positive Hepatitis B Antibody test results are known). This information is available to the employee by checking ReadySet ([www.chw.readysetsecure.com](http://www.chw.readysetsecure.com)).
  - HBsAg (Hepatitis B Surface Antigen)
  - Anti-HCV (Hepatitis C Antibody)
8. If a regimen of PEP is prescribed for HIV exposure
  - A pregnancy test (if needed) and baseline labs for medication monitoring will also be drawn in the EDTC.
  - Counseling and education will be given the employee regarding the drugs.
  - An initial four day supply of PEP may be dispensed. The need for additional medication will be assessed by Employee Health and Wellness together with the exposed staff and an Infectious Disease Specialist.
  - Medication will be obtained from the Employee Prescription Center (EPC) in the Children's Corporate Center Call 414-266-3303, x5. Outside EPC hours the prescription would be taken to Children's Inpatient Pharmacy, or may be dispensed at the EDTC providing care.
9. EHW will coordinate follow up with the exposed staff during next business hours:
  - Obtain outstanding lab results for the source patient
  - Obtain outstanding lab results for exposed staff
  - Follow up on additional immunizations as needed

- Schedule further testing at two (2) weeks and four (4) weeks for monitoring of drug toxicity if PEP is being taken.
- Schedule post-exposure testing if source test results are positive or reactive, or if source is unknown/unable to be tested.
- Obtain additional information regarding circumstances of exposure and job duties relevant to the exposure.

### III. **Post Exposure Counseling:**

- A. Post exposure counseling and any other information will be given as needed to assist the exposed staff member to understand the exposure, and follow-up that is recommended as well as to reduce the anxiety that may be experienced. Give [Post Blood and Body Fluid Exposure Counseling handout](#) to exposed person.
- B. If indicated, counseling about post exposure prophylaxis will include:
  - Efficacy of antiretroviral agents
  - Side effects of antiretroviral agents
  - Unknown long-term effects of antiretroviral agents
  - A pregnant staff member should consider antiretroviral agents only after discussion with her health care provider and other knowledgeable experts as needed so that she understands the dangers and liability.
- C. EHW can arrange for scheduling an appointment for the exposed person as soon as possible with an Infectious Disease specialist or other Health Care Provider knowledgeable about the disease, prevention, and follow-up
- D. Exposed staff may be referred to the Employee Assistance Program (EAP).

### IV. **Written Medical Follow-up Report from EHW**

- A. The exposed staff member will be sent a written follow-up report including his/her lab test results, exposure source lab test results, details of the exposure, and recommendations for follow-up.
- B. This written report will be provided to the staff member within fifteen (15) days of the initial evaluation.

### V. **Alternative Testing Sites:**

Any staff member who desires HIV-AB screening but has not sustained a documented occupational exposure as defined in this policy will be referred to an alternative testing site by EHW.

### VI. **Recordkeeping and Reporting**

- A. An Incident Report detailing the accident and related records is kept in the staff member's confidential employee health medical record.
- B. Exposure data is reported at the Children's Hospital Infection Control Committees and/or Sharps Safety Committee (Staff identification is confidential in all published data and reporting).
- C. Exposures may be reported to the designated Children's Hospital Environment of Care Committee.

- D. Data is available to determine improvements in engineering controls and work practices to reduce the exposure potential as directed by OSHA.
- E. Sharps injuries are recorded as directed by OSHA on OSHA recordkeeping forms.

## **VII. Supportive Information**

- Infection Prevention and Control: Employee Health and Wellness (EHW) Services: Control and Abatement of Employee Communicable Diseases P&P
- Infection Prevention and Control: Blood Borne Pathogen (BBP) Exposure Control Plan (ECP)
- Blood and body fluid exposure resources on Children's Connect:
  - <https://connect.chw.org/employee-resources/total-rewards/well-being/blood-body-fluids>
- **HIV Teaching Sheet [1068EN.ashx \(chw.org\)](#)**

## **References**

- OSHA 29 CFR 1910.1030
- 2009 Wisconsin Act 209
- Chapter 252 – Wisconsin Communicable Disease Statutes
- [https://nccc.ucsf.edu/wp-content/uploads/2014/03/Updated\\_USPHS\\_Guidelines\\_Mgmt\\_Occupational\\_Exposures\\_HIV\\_Recommendations\\_PEP.pdf](https://nccc.ucsf.edu/wp-content/uploads/2014/03/Updated_USPHS_Guidelines_Mgmt_Occupational_Exposures_HIV_Recommendations_PEP.pdf)
- CDC Guidance for Evaluating Health-Care Personnel for Hepatitis B Virus Protection and for Administering Postexposure Management: MMWR December 20, 2013 /62 (10)
- Schillie S, Vellozzi C, Reingold A, et al. Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. MMWR Recomm Rep 2018; 67 (1): 1-31
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- Moorman AC, de Perio MA, Goldschmidt R, et al. Testing and Clinical Management of Health Care Personnel Potentially Exposed to Hepatitis C Virus — CDC Guidance, United States, 2020. MMWR Recomm Rep 2020; 69(No. RR-6):1–8. DOI: <http://dx.doi.org/10.15585/mmwr.rr6906a1externalicon>.

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