

Bloodborne Pathogens



Employee Health and Safety

PeaceHealth

Oregon West Network

Bloodborne Pathogens Exposure

- Healthcare workers are at risk for work exposure to bloodborne pathogens (blood viruses) including
 - *Hepatitis B Virus*
 - *Hepatitis C Virus*
 - *Human Immunodeficiency Virus (HIV)*
- Work (occupational) exposures may happen with:
 - *Needle stick or sharps injuries that are dirty with a patient's blood or body fluids (wet or dry)*
 - *During contact with your eyes, nose, mouth or breaks in your skin and a patient's blood or body fluids*
- Use **Standard Precautions** for all patients to prevent the infection. The biohazard sign will identify containers and areas with potential infectious material.

What are Bloodborne Pathogens?

Any potentially infectious materials:

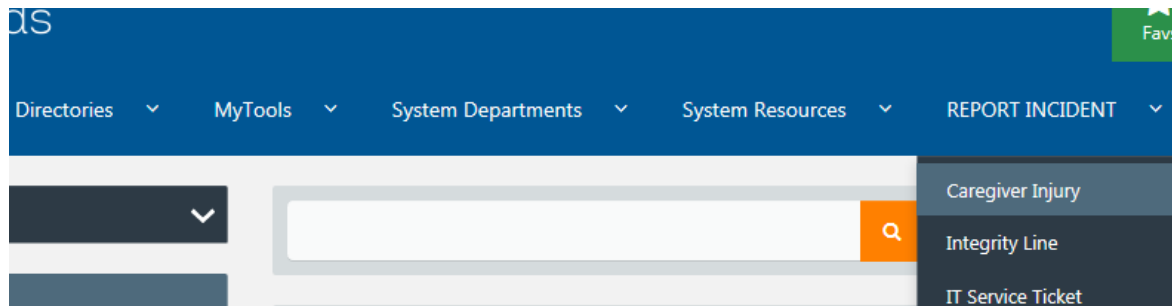
- *Blood*
- *Bloody body fluids*
- *Cerebrospinal fluid*
- *Pericardial fluid*
- *Peritoneal fluid*
- *Synovial fluid*
- *Pleural fluid*
- *Amniotic fluid*
- *HIV containing cell or tissues cultures*
- *Any body tissue or organ*
- *Semen*
- *Vaginal secretions*
- *Saliva in dental procedures*
- *Instrument or fluid contaminated with these body fluids*

Steps to Follow After an Exposure

- **Clean the wound with soap and water**
 - *If splashed in your eyes, irrigate with water for 5 minutes using the Eye Wash Station*
- **Report the incident immediately**
 - *To your manager, supervisor or Charge Nurse*
- **Call EH or House Supervisor to get exposure labs drawn on Source Patient STAT**
 - *[BBF Packet](#) and instructions are on [Crossroads, EH site](#),*
 - *This is the most important step other than 1st Aid*
 - *HIV prevention medicine should be started within hours if needed*

After an Exposure continued

- Complete Caregiver Injury Form
 - Located under Incidents on Crossroads



- **Within 2 hours of exposure**
 - Come to Employee Health or contact the House Supervisor (after hours)
 - Employee Health or House Supervisor will determine if referral to Emergency Department is indicated
 - Fax Body Fluid Exposure Flow sheet to Employee Health
 - Located in BBF packet online
- **Participate in your follow-up care**
 - As directed by Employee Health

Questions and Answers

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CHARGE NURSE/LEAD PROTOCOL FOLLOWING A BODY FLUID EXPOSURE

Relieve caregiver of duties as needed to provide first aid.

Charge Nurse/Lead:

- Call House Supervisor for risk assessment for Caregiver RBH pager: 541-685-6333

House Supervisor/Charge Nurse/Lead:

- Follow instructions on lab slip (page 3) to get the Source Patient drawn STAT.
- NOTE: Lab slip instructions are a new process
- Do NOT enter order number into CareConnect (otherwise, the patient will be charged)

Between hours of 0730-1600:

- Refer exposed caregiver to Employee Health with the following information:
Source name and location, MR#, DOB, charge nurse name and contact number.

Between the hours of 1600-0730:

- Contact House Supervisor for a risk assessment.
- RBH pager 541-685-6333
- The Supervisor will determine if a referral to the ED is indicated.

If referral to the ED is NOT indicated, House Supervisor/CN/Lead will fax Body Fluid Exposure flowsheet to Employee Health at 541-434-3140 (CONFIDENTIAL FAX) and **instruct employee to report to or call Employee Health at 541-222-2535 by the next business day.**

The MOST CRITICAL piece in a Body Fluid Exposure follow-up is determining the risk of HIV transmission from the source patient to the exposed employee. If there are no serious risk factors (i.e. documented IV drug use, known HIV positive patient); Employee Health will do counseling and testing for the employee and no referral to the ED is indicated.

EMPLOYEES SHOULD NEVER BE DRAWN ON THE UNIT.

The MOST IMPORTANT ROLE of the CHARGE NURSE is referring the caregiver to Employee Health during office hours (0730-1600) or notifying the House Supervisor (when Employee Health is closed). **The House Supervisor/CN/lead will facilitate the Source patient STAT blood draw.** Make sure the Body Fluid Exposure flowsheet is faxed to Employee Health for follow-up – 541-434-3140.

BODY FLUID EXPOSURE FLOWSHEET

Exposed Caregiver Name: _____ **DOB:** _____

First Six Digits of exposed caregiver SS#: Employee Number _____

Caregiver Contact #: _____ May we leave a message regarding results? : YES NO

Exposed Caregiver must complete the caregiver Injury form: Go to Crossroads... QuickLinks... CAREGIVER Injury Form

Source of your Exposure(Name): _____ **DOB:** _____ **MR#:** _____

List any known source patient risk factors: _____

Name of supervisor or charge nurse Notified: _____ Date of exposure: _____

Was lab work drawn on the source patient? YES NO Was exposed caregiver sent to E.D? YES NO

DO NOT WRITE BELOW THIS LINE –complete top and FAX to 541 434-3140 (EH Confidential Fax) ASAP

Source Patient results: Date: _____ HIV _____ HBsAg _____ HCV _____ HCV RNA PCR _____

Type of Exposure:

NEEDLESTICK or BLOOD & BODY FLUID
(circle one)

Body Part _____

Related Activity _____

Device _____

Brand _____

Size/ Gauge _____

Body Fluid Type _____

Personal Protective Equipment worn?
: _____

Safety Device? YES NO

Safety Failed? YES NO

Stuck by Staff? YES NO

Uncooperative Pt? YES NO

Exposed Caregiver:

- Injury Report _____ PEP Consent/Declination _____ Baseline Testing Declination _____
- HBsAB Result: _____ HIV Test verbal notification/declination _____
- Last Tetanus _____
- Pregnant? _____ YES _____ NO

BASELINE:	4-6 weeks:	12 weeks:	6 Months:
HIV	HIV	HIV	HIV
Anti-HCV	HCV RNA	HCV RNA	HCV RNA
ALT	ALT	ALT	ALT
HBsAb			

PEP RECOMMENDATION:

- Low Risk Source/Exposure PEP not warranted.
- High Risk Source/Exposure, referred to ED for Evaluation and Treatment.
- Referred to Infectious Disease Specialist for Evaluation and Treatment.

Signature _____ EHN Date _____

After Hours:

- House Supervisor or designee will access this form on the Crossroads, Employee Health website.
 - Fill out the form with Source Patient information and other details as needed.
- House Supervisor or designee will fax form to RBA lab at: 541-984-8211
 - House Supervisor will call the lab after faxing. Call 541-984-8240 and ask for the Work Flow Coordinator. Explain that a requisition for exposure testing was faxed and needs STAT priority.
- RBA Lab will enter orders in Epic Beaker. Follow the procedure available on Crossroads Policy Center **Ordering Source Patient Tests for Employee Health – Central Lab** then *call phlebotomy and provide the RQ#, Source patient name, and DOB and inform them there is need for STAT lab draw.* Do not leave message; call again if no answer.
 - Lab at CGH: 541-767-5234
 - Lab at SHMC UD: 541-341-8009
 - Lab at SHMC Riverbend: 514- 222-1753

Employee Health Hours:

- Fill out this form and bring to Employee Health for follow up. You may also fax it to 541-434-3140. Employee Health will order the labs in EPIC and call the phlebotomy lead at 222-1753 and provide the RQ#, Source patient name, and DOB and inform them there is need for STAT lab draw. Do not leave message; call again if no answer.

EXPOSURE SOURCE PATIENT LAB REQUISITION

Submitter:	EMPLOYEE HEALTH RBMC	Provider:	<i>Provider not needed</i>
Diagnosis:	Z77.21	Drawn By =	Lab

Order tests for this Source Patient Include Location (CGH, UD or RBH) Place Sticker Here → Call lab for STAT lab draw and perform STAT Rapid HIV.	
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Procedures	
LAB6517 STAT	HIV-1/2 Ag/Ab Rapid reflex to 4th Gen HIV Ag/Ab EIA
LAB868	Hepatitis C Virus Antibody
LAB1315	Hepatitis B Surface Antigen

Specimens	Date	Time	Collector's 3X3
1.			
2.			

Exposed information	Exposed Caregiver's Name (Last, First)	DOB	Sex
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POST-EXPOSURE COUNSELING INFORMATION SHEET

The following information assists the health care professional to evaluate the risk of transmission for HIV and Hepatitis B and C, based on the source material and type of exposure.

Infectious Source Material Risk:

If the body fluid involved is NOT listed in the table below, the exposure is NOT a valid Blood Borne Pathogen exposure and no testing is indicated.

Blood	Synovial fluid	Semen
Bloody body fluids	Pleural fluid	Vaginal secretions
Cerebrospinal fluid	Amniotic fluid	Saliva in dental procedures
Pericardial fluid	HIV-containing cell or tissue cultures	Instrument or Fluid contaminated with these fluids
Peritoneal fluid	Any unfixed tissue or organ	

Type of Exposure and Risk of Transmission:

Pathogen*	Percutaneous (needle stick, sharp object)	Mucous membrane	Non-intact skin	Intact skin
HIV	0.3% (less than 1/300); 99.7% of exposures do not result in infection	0.09% (1/1000)	Less than 0.09%	Less than 0.09%
Hepatitis B	2-40%	Not quantified	Not quantified	Not quantified
Hepatitis C	1.8%	Not quantified	Not quantified	Not quantified

* These statistics apply to source blood known to be infected with these pathogens.

References: MMWR, May 15, 1998, Vol 47, No. RR-7, P. 3. Journal of the Association of Occupational Health Professionals, July/August, 1998, Vol. 18, No. 4, P.29. MMWR, October 16, 1998, Vol. 47, No. RR-19, P. 7

Risk Assessment Criteria: A guide to assist in exposure assessment.

Highest Risk: PEP Recommended

- Percutaneous, deep injury
- Source Material - visible fresh blood
- High-risk lifestyle or known HIV positive source **

Increased Risk: Offer PEP

- Percutaneous, superficial
- Mucous membrane, prolonged contact
- Skin, prolonged contact, extensive area, compromised skin integrity
- High-risk lifestyle or known HIV positive source **

No Increased Risk: PEP Not Recommended (Risk for drug toxicity outweighs the benefits of PEP)

- Percutaneous, superficial
- Intact skin, small area, minimal exposure time
- Mucous membrane, small amount, minimal exposure time
- No visible blood
- Fluid containing no visible blood
- Low-risk lifestyle or known HIV negative source

**If source patient HIV status is unknown, initiate PEP based on the exposure risk and the likelihood of HIV infection in the source. As additional information becomes available, PEP can be modified.

Post-exposure Prophylaxis (PEP): Consult with the National Clinicians' Post-Exposure Prophylaxis Hotline @ **888-448-4911** or http://www.nccc.ucsf.edu/about_nccc/pepline/

Consent and Testing Issues

Written informed consent must be obtained to perform HIV testing on employees. Explain the nature of the HIV test; include the possibility of false-positive or false-negative results. False negatives may occur for a period up to 12 weeks after a person is infected with the HIV virus. False positives may occur due to the sensitivity of the HIV test, in which case confirmatory testing would be ordered.

Obtaining results

Rapid HIV test results are generally available within 2-3 hours. Hepatitis C and Hepatitis B generally take 24-48 hours. Employees will be notified when results are available.

Transmission of Disease

If the source tests positive for HIV or hepatitis B or C, the exposed person will be followed for six months in order to rule out any transmission of blood-borne pathogens. It is extremely important to use every precaution to minimize potential exposure of blood or bloody body fluids. Examples of precautions include universal precautions; abstinence or use of condoms both for partner protection and to reduce pregnancy risk; avoid sharing razors, toothbrushes, or any other instrument that could become contaminated with blood, and refrain from donating blood, plasma, body organs/tissues, or sperm/semen. An exposed employee should consider discontinuing breastfeeding if exposure poses high risk for potential transmission.

Reporting Illness

The health care worker should be advised to report and seek medical evaluation for any acute febrile illness that occurs within 6 months after the exposure. Symptoms consistent with acute HIV infection include: fever, muscle pain, fatigue, malaise, swollen lymph nodes, rash, and joint pain.

EAP The Employee Assistance Program is available for individual or family counseling to address concerns.

HIV Post-Exposure Prophylaxis (PEP) Information

If the source is HIV positive, post exposure prophylaxis is available to reduce the risk of transmission of the virus. PEP should be initiated as soon as possible, preferably within 1-2 hours up to 36 hours rather than days of exposure.

Duration of PEP

PEP is prescribed for a period of 4 weeks.

Baseline and periodic lab testing will be done to monitor potentially harmful effects of medication while on PEP. A referral will be made to an Infectious Disease physician for monitoring. If PEP is initiated because of increased risk of HIV but testing confirms no HIV is present, PEP would be discontinued.

Side Effects of PEP and Drug Interactions

The most commonly reported side effect from PEP is nausea, followed by malaise and fatigue. **Because PEP is potentially toxic, its use is not justified for exposures that pose a negligible risk for transmission.** All approved antiretroviral agents might have potentially serious drug interactions when used with certain other drugs, requiring careful evaluation of concomitant medications.

PEP Drugs during Pregnancy

Data regarding the potential effects of antiretroviral drugs on the developing fetus or neonate are limited. Carcinogenicity and mutagenicity are evident in certain in vitro screening tests for ZDV and all other FDA-licensed NRTIs (nucleoside reverse transcriptase inhibitors). Consult an obstetrician or perinatologist before instituting PEP in pregnancy.

PEP Hotline 888-448-4911 or http://www.nccc.ucsf.edu/about_nccc/pepline/

Additional information and consultation is available at the National Clinicians' Post-Exposure Prophylaxis Hotline 24 hours a day, 7 days a week. It offers clinician assistance/information on risk assessment, prophylaxis recommendations for HIV, Hepatitis B and C, and other blood borne diseases.