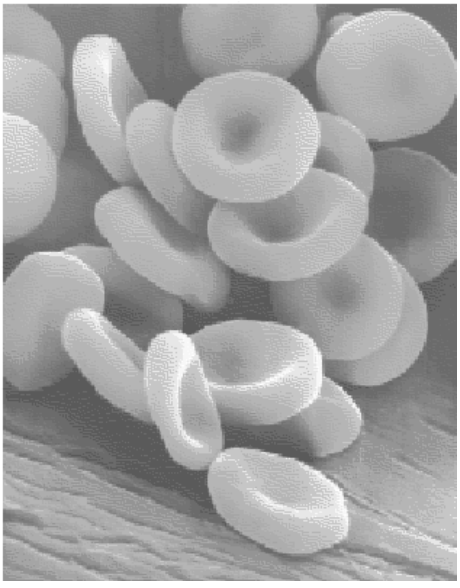
# Bloodborne Pathogens

## What Employers and Employees Need to Know



DEPARTMENT OF CONSUMER & BUSINESS SERVICES

**Presented by the Public Education Section**
**Oregon OSHA**
**Department of Consumer and Business Services**

Oregon OSHA
PUBLIC EDUCATION

**OR-OSHA Public Education Mission**

We provide knowledge and tools to advance self-sufficiency in workplace safety and health

**Consultative Services**

- Offers no-cost on-site assistance to help Oregon employers recognize and correct safety and health problems.

**Enforcement**

- Inspects places of employment for occupational safety and health rule violations and investigates complaints and accidents.

**Standards & Technical Resources**

- Develops, interprets, and provides technical advice on safety and health standards.
- Publishes booklets, pamphlets, and other materials to assist in the implementation of safety and health rules.

**Public Education & Conferences**

- Presents workshops and conferences to managers, supervisors, safety committee members, and others on occupational safety and health requirements

## Questions? Call Us

**Field Offices**

| | |
|---|---|
| Portland | 503.229.5910 |
| Salem | 503.378.3274 |
| Eugene | 541.686.7562 |
| Medford | 541.776.6030 |
| Bend | 541.388.6066 |
| Pendleton | 541.276.9175 |

**Salem Central Office:**

**Toll free number in English: 800.922.2689**

**Toll free number in Spanish: 800.843.8086**

**Web site: www.orosha.org**

# ***Welcome!***

**Bloodborne pathogens** are viruses and bacteria in human blood that can cause disease in humans, including hepatitis B and C viruses and the human immunodeficiency virus, or HIV. Workers exposed to these pathogens risk serious illness.

OSHA has determined that employees face a significant health risk as a result of occupational exposure to blood and OPIM (***O****ther* ***P****otentially* ***I****nfectious* ***M****aterial*). This exposure can be minimized or eliminated by implementing an Exposure Control Program to manage the use of a combination of engineering and work practice controls, personal protective clothing and equipment, training, medical surveillance, Hepatitis B vaccination, signs and labels, and other provisions. OSHA enacted the Occupational Exposure to Bloodborne

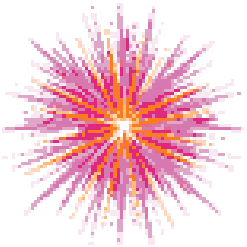
Pathogens standard in 1991 ***( 29 CFR 1910.1030)***.

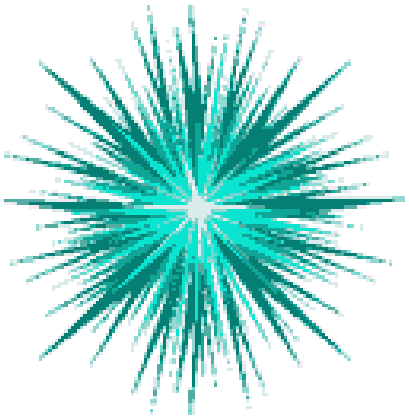
## ***Changes required by the Needlestick Safety and Prevention Act:***

Enacted by Congress in 2000, P.L. 106-430 revises the 1991 OSHA Bloodborne Pathogens Standard to include increased emphasis on the use of engineering controls such as safety needles; more accurate recording of needlesticks; and the involvement of workers in the selection of equipment and work practices to prevent needlesticks and other exposures to blood.

***Please Note:*** This material, or any other material used to inform employers of compliance requirements of Oregon OSHA standards through simplification of the regulations should not be considered a substitute for any provisions of the Oregon Safe Employment Act or for any standards issued by Oregon OSHA.

# DID YOU KNOW?





**This workbook is available for .pdf download at the OR-OSHA web site, as are the training materials for all our other workshop topics.**

**Check us out at:**

**http://www.cbs.state.or.us/external/osha/educate/training/pages/materials.html**

# What We'll Discuss...

This short introduction to the Exposure Control Plan, as detailed in ***OAR 437, Div 2/Z, Bloodborne Pathogens,*** is designed to familiarize you with the various program requirements and how to manage them effectively at your workplace. Please feel free to ask questions at any time, and thanks for attending.

## Objectives

1. Describe requirements of the written Exposure Control Plan

2. Describe information, recordkeeping, and training requirements

3. Identify engineering and work practice controls, and personal protective equipment

4. Be familiar with hepatitis B vaccination and post-exposure/follow-up procedures

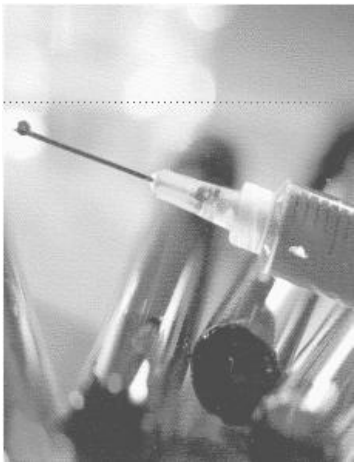
# Occupational Exposure to Bloodborne Pathogens

## Scope and Application *

The Standard applies to all occupational exposure to blood or other potentially infectious materials (OPIM).

## What is occupational exposure?

***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;



### Parenteral

- Literally, entry into the body by any other route than the mouth/digestive system; typically, this takes the form of needlesticks, cuts and abrasions.
- This definition includes human bites that break the skin, which are most likely to occur in violent situations, e.g., prison and law enforcement personnel, psychiatric ward workers.

## Who is covered by this standard?

The standard covers all employees ***who could be reasonably expected*** to come into contact with human blood and OPIM in the course of their work.

## * Full rule located on the web at:

http://www.cbs.state.or.us/external/osha/pdf/rules/division_2/div2z-1030-bloodborne.pdf


# Definitions

"***Blood*** " means ***human*** blood, *components* and *products* of human blood.

***Pathogen:*** An agent of disease; pathogens include ***bacteria*** such as staph, ***viruses*** such as HIV, and ***fungi*** such as yeast.

The term "pathogen" was devised about 1880 and was compounded from ***patho-*** meaning disease + ***gen*** indicating a producer = a producer of disease.

## Bloodborne Pathogens

- Pathogenic micro-organisms in human blood that can cause disease
- While HIV, HBV and HCV are specifically named, **the term includes any pathogenic micro-organism that is present in human blood or OPIM and can infect and cause disease in persons who are exposed to blood containing the pathogen.**


# ***More Definitions...***

***Other Potentially Infectious Materials*** (OPIM) include:

1. Human blood components and/or products
2. Semen
3. Vaginal secretions
4. Cerebrospinal fluid
5. Synovial fluid (joints)
6. Pleural fluid (chest)
7. Pericardial fluid (heart)
8. Peritoneal fluid (abdomen)
9. Amniotic fluid (childbirth)
10. Saliva in dental procedures
11. Any body fluid that is visibly contaminated with blood
12. Any fluids in which differentiation of body fluid types is difficult or impossible


# Still More Definitions…

## The Importance of Engineering Controls

Expanded wording from the Needle-stick Prevention Act

### Engineering Controls

All control measures that isolate or remove a hazard from the workplace, e.g., sharps disposal containers and self-sheathing needles...

***…safer medical devices such as sharps with engineered sharps injury protections and needleless systems.***

### Two New Definitions

1. ***Sharps with Engineered Sharps Injury Protections (SESIP)***

   Non-needle sharps or needle devices containing built-in safety features, e.g.:

   - Syringes with a sliding sheath that shields the attached needle after use
   - Needles that retract into a syringe after use
   - Shielded or retracting catheters
   - IV delivery systems that use a catheter port with a needle housed in a protective covering

2. ***Needle-less Systems***

   Devices which provide an alternative to needles for various procedures to reduce the risk of injury involving contaminated sharps, e.g.:

   - Collection of bodily fluids
   - Jet injection systems which deliver liquid medication beneath the skin or into a muscle

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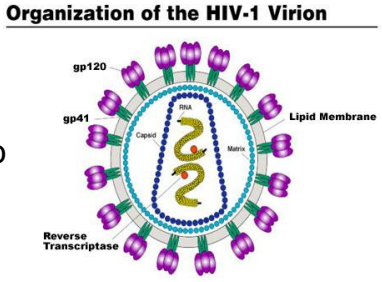
# Bloodborne Infectious Diseases...HIV/AIDS

## What is HIV?

- **HIV (human immuno-deficiency virus)** is the virus that causes AIDS.
- Passed from one person to another through blood-to-blood and sexual contact
- Infected pregnant women can pass HIV to their babies during pregnancy or delivery, as well as through breast-feeding.
- People with HIV have what is called HIV infection. Most of these people will develop AIDS as a result of their HIV infection.




## What is AIDS?

- AIDS stands for **Acquired Immuno-Deficiency Syndrome.**
- Caused by the HIV virus
- The HIV virus destroys a certain kind of blood cells CD4+ T cells (helper cells) which are crucial to the body's immune system.
- The immune system is weakened to the point that it has difficulty fighting off certain infections.
  These types of infections are known as **"opportunistic"** infections because they seize the opportunity a weakened immune system provides to cause illness.

## What body fluids transmit HIV?

| **These body fluids *DO SPREAD* the HIV virus...**: | **These body fluids *MAY SPREAD* the HIV virus...** |
|---|---|
| • blood<br>• semen<br>• vaginal fluid<br>• breast milk<br>• other body fluids containing blood | • Cerebrospinal fluid<br>• Synovial fluid<br>• Amniotic fluid |

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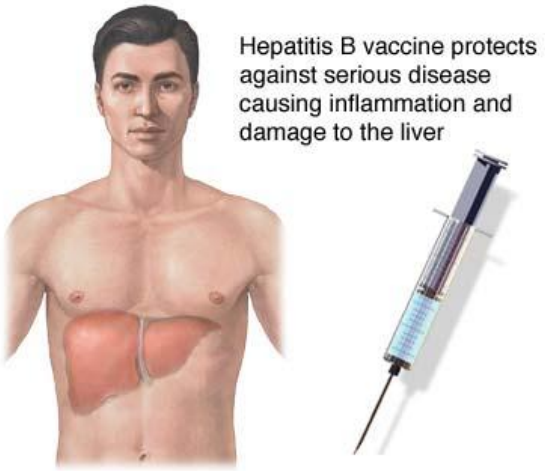
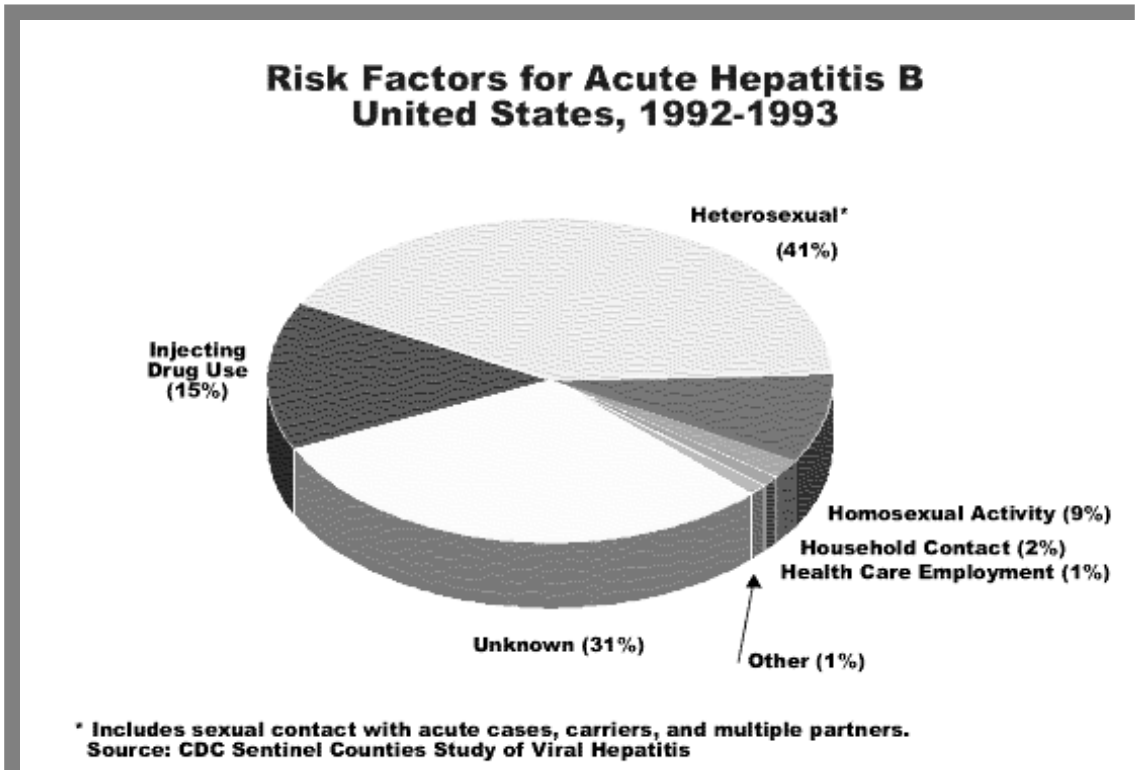
# Bloodborne Infectious Diseases...Hepatitis B Virus

## What is hepatitis B?

- Hepatitis B is a germ (virus) that gets into your body and attacks your liver.
- Your liver helps your body digest the food you eat.
- It also helps your body get rid of poisons.



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# Bloodborne Infectious Diseases...Hepatitis B Virus

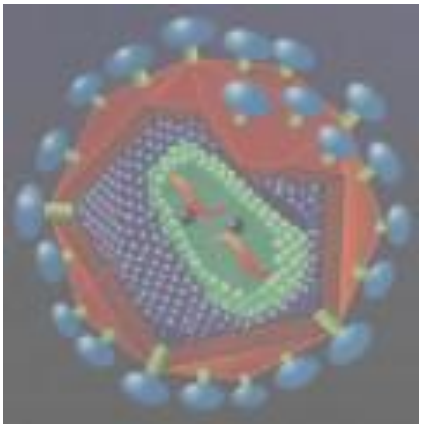
**Hepatitis B...**
**100 times easier to catch than HIV!**
**Get vaccinated against this disease!**

## How do you get hepatitis B?

It is passed by contact with the blood or other body fluids of someone who has the virus.

## There are 3 main ways to get hepatitis B:

- Having sex without condoms with someone who has the hepatitis B virus
- Being born to a mother who has the virus
- Sharing needles and syringes



## Will I die from hepatitis B?

- Most people (9 out of 10) recover from HBV, but some do not. Recovery usually results in lifetime immunity.
- Hepatitis B sometimes causes liver damage (cirrhosis) that does not go away.
- It can also cause liver cancer, which may lead to death.
- Good medical care can make your risk less for these.

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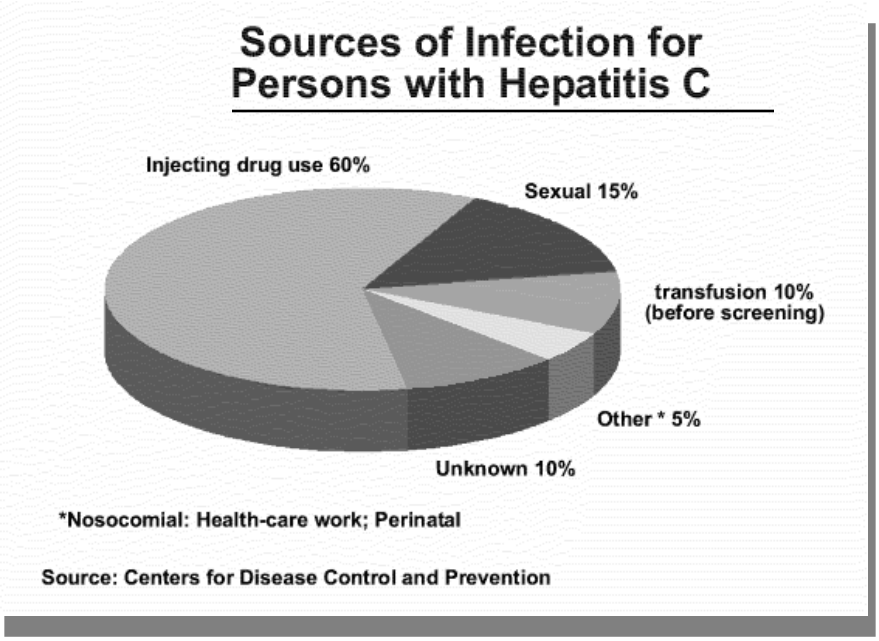
# Bloodborne Infectious Diseases...Hepatitis C Virus

## What is hepatitis C (HCV)?

- The ***most common chronic bloodborne infection*** in the United States (CDC)
- In about 85% of the cases the infection is permanent, and people infected become chronic carriers.
- The ***number one cause of liver transplants*** in the U.S.



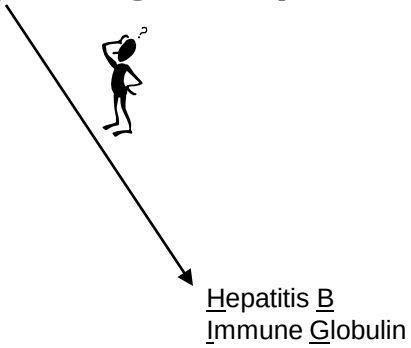

## How is Hepatitis C spread?

- Primarily through large or repeated direct percutaneous (via blood vessels) exposures to human blood, ***i.e., injecting drug use***
- blood and blood product transfusion prior to 1992 (very rare since 1992)

# Bloodborne Infectious Diseases...Hepatitis C Virus

## Occupational Transmission of HCV

- Inefficiently transmitted by occupational exposures
- Case reports of transmission from blood splash to eye
- No reports of transmission from skin exposures to blood
- Post-exposure prophylaxis with **$H_{BIG}$** is ***not generally effective*** in preventing Hepatitis C.



Hepatitis B
Immune Globulin

## Health Care Personnel (HCP)- to-Patient Transmission of HCV

- Rare; prevalence 1-2% among health care workers
- In U.S., none related to performing invasive procedures
- Most appear related to HCW substance abuse

## Other Transmission Issues

- HCV is not spread by kissing, hugging, sneezing, coughing, food or water, sharing eating utensils or drinking glasses, or casual contact.


# RECAP: DISEASES TRANSMITTED IN BLOOD



## Hepatitis B virus

- Hepatitis B infection can cause cirrhosis and is the leading cause of liver cancer in the world. The virus is extremely infectious and can stay alive in dried blood for up to a year. Only 10 percent of infected adults become chronic carriers, but 60 percent to 90 percent of infected children under 1 year old end up with a chronic condition. One-fourth of chronic carriers eventually die of liver cancer or cirrhosis. An effective three-shot vaccine has been available since 1982.

***Chance of getting hepatitis B from a syringe infected with the hepatitis B virus***

**30%**

## Hepatitis C virus

- Also attacks the liver. More than 80 percent of those infected become chronic carriers, and one-fifth of those will develop cirrhosis within 10 to 40 years. A smaller percentage develop liver cancer. The first test for the virus became available in 1989, so much is still unknown about the disease. There is no vaccine. Treatment with interferon is expensive, limited to adults and effective in less than 20 percent of cases.

***Chance of getting hepatitis C from a syringe infected with the hepatitis C virus***

**3%-5%**

## HIV, also known as the AIDS virus

- The AIDS virus attacks the immune system, allowing other diseases to develop. AIDS was considered fatal until a recent combination of new drugs led to a dramatic drop in the death rate in the United States.

- HIV is transmitted primarily through sexual contact. Transmission risk from a needle is low..

***Chance of getting HIV from a syringe infected with the HIV virus***

**0.3%**

## More than 20 other infections can be transmitted through contaminated needles, including:

- Syphilis, malaria, streptococcal and staphylococcal sepsis, Dengue fever, human T-lymphotropic virus Type 1, Rocky Mountain spotted fever, herpes, hepatitis D and G, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-Jakob disease and viral fevers caused by Ebola.


# ***Bloodborne Infectious Diseases continued...***

## ***FAQs, Hoaxes and Rumors***

***1.*** **Can I get BBP (BloodBorne Pathogens) through casual contact, e.g., shaking hands, hugging, using a toilet, drinking from the same glass, or sneezing and coughing of an infected person?**

***No.*** *No one ever has.*

***2.*** **Can I get BBP from kissing on the cheek?** ***No.***

***3.*** **Can I get BBP from getting a tattoo or through body piercing?**

***Yes.*** *A risk of BBP transmission does exist if instruments contaminated with blood are either not sterilized or disinfected or are used inappropriately between clients.*

***4.*** **Can I get infected with BBP from mosquitoes?**

***No.*** *Studies conducted by the CDC (**C**enters for **D**isease* **C**ontrol) *and elsewhere have shown no evidence of HIV transmission through mosquitoes or any other insects -- even in areas where there are many cases of AIDS and large populations of mosquitoes.*

**5. Recently, a *Weekly World News* story made claims that CDC had discovered a mutated version of HIV that is transmitted through the air. Is this true?**

***No.*** *This story is **not true.** Many scientific studies have been done to look at all the possible ways that HIV is transmitted. These studies have not shown HIV to be transmitted through air, water, insects, or casual contact.*


# Bloodborne Infectious Diseases continued...

## More FAQs, Hoaxes and Rumors

**6. Are patients in a dentist's or doctor's office at risk of becoming infected?**

***Not likely, but…*** *Although HIV transmission is possible in health care settings, it is extremely rare. Medical experts emphasize that the careful practice of Infection control procedures, including universal precautions, protects patients as well as health care providers from possible HIV infection in medical and dental offices.*

*In 1990, the CDC reported on an HIV-infected dentist in Florida who apparently infected some of his patients while doing dental work. Studies of viral DNA sequences linked the dentist to six of his patients who were also HIV-infected. The CDC has as yet been unable to establish how the transmission took place.*

*Further studies of more than 22,000 patients of 63 health care providers who were HIV-infected have found no further evidence of transmission from provider to patient in health care settings.*

***7.*** **I've read on the Internet several stories about people getting stuck by needles in phone booth coin returns, movie theater seats, gas pump handles, and other places. One story said that CDC reported similar incidents about improperly discarded needles and syringes. Are these stories true?**

***Essentially, No.*** *These reports and warnings are being circulated on the Internet and by e-mail and fax. Some reports have falsely indicated that CDC "confirmed" the presence of HIV in the needles. CDC has not tested such needles nor has CDC confirmed the presence or absence of HIV in any sample related to these rumors. The majority of these reports and warnings appear to have no foundation in fact.*


## Bloodborne Infectious Diseases continued…

## Still more FAQs, Hoaxes and Rumors

**8. Can BBP Be Transmitted by Contact With Unused Feminine (Sanitary) Pads?**

***No.*** *Although some people have been concerned that BBP might be transmitted in other ways, such as through air, water, insects, or objects, no scientific evidence supports these ways to transmit BBP. BBP cannot be transmitted through the use of new, unused feminine pads. Even though no one has gotten HIV from touching used feminine pads, used pads should be wrapped and properly disposed of so no one comes in contact with blood.*

**9. "Texas Child Dies of Heroin Overdose After Being Stuck by Used Needle Found in Playground"**

***Nope, didn't happen!*** *This story was investigated and found to be a hoax. To become overdosed on a drug from a used needle and syringe, a person would have to have a large amount of the drug injected directly into their body.*

*A needlestick injury such as that mentioned in the story would not lead to a large enough injection to cause a drug overdose. In addition, drug users would leave very little drug material in a discarded syringe after they have injected. If such an incident were to happen, there would likely be concerns about possible bloodborne infections, such as human immunodeficiency virus and hepatitis B or C. The risk of these infections from an improperly disposed of needle, such as that described in the story, would be extremely low.*


# *The Exposure Control Plan (ECP)*

Each employer having an employee(s) with occupational exposure must establish a **written Exposure Control Plan** designed to *eliminate or minimize employee exposure*.

## Elements of the Exposure Control Plan (ECP)

**1. The exposure determination**

**2. Implementation details** for specific topics, including:

A. Methods of compliance

B. Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up

C. Communication of Hazards to Employees, and…

D. Recordkeeping

**3. The procedure for the evaluation of circumstances surrounding exposure incidents**

Each employer must make sure a copy of the Exposure Control Plan is available to all employees.

***NOTE:***

Additional requirements exist for employers designated as HIV and HBV Research Laboratories and Production Facilities.

Please refer to the BBP code in Subdivision Z, page Z-16, ***located on the web at:***

http://www.cbs.state.or.us/external/osha/pdf/rules/division_2/div2z-1030-bloodborne.pdf


# ***The Exposure Control Plan (ECP) continued...***

## ***Additional requirements imposed on the ECP by the Needlestick Prevention Act…***

**The ECP** must be reviewed and updated annually and whenever jobs/tasks/procedures are changed.
The review/update shall:

- **Reflect changes** in technology that eliminate or reduce exposure
- **Document annually** consideration and implementation of appropriate safer medical devices
- **Document solicitation of input from non-managerial employees who are…**
  - **Responsible for direct patient care**
  - **Representative sample of those with potential exposure**
  - Listing the employees involved and describing the process by which input was requested, or…
  - Other documentation, including references to minutes of meetings, copies of documents used to request employee participation or records of responses received from employees


## ***Determining Exposure: How to decide...***

***Each employer who has an employee with occupational exposure must prepare an exposure determination. This exposure determination must contain the following:***

- A list of job classifications in which ***all*** employees in those job classifications have occupational exposure
- A list of job classifications in which ***some*** employees have occupational exposure, and...
- A list of all tasks and procedures or ***groups of closely related tasks and procedures*** in which occupational exposure occurs and that are performed by employees in the job classifications listed
- This exposure determination must be made without regard to the use of personal protective equipment.

## ***Exposure Determination…easier said than done!***

### "Reasonably anticipated"…how to decide???

| EASY | | NOT SO EASY |
|---|---|---|
| EMT Worker | vs. | Crew person in a fast-food restaurant |
| Custodian in a medical clinic | vs. | A custodian in an office |
| Designated first aid responder | vs. | Ski patrol volunteer |


## Determining Exposure: How to decide (continued)...

## Collateral Duty Clause* (issued January 15, 1997)

**Employers with employees who are not routinely exposed to blood or OPIM may fall under the collateral duty clause, in which case the hepatitis B vaccination would not need to be offered until an incident involving the presence of blood or OPIM occurs.**

**In order for an employer to qualify under the collateral duty clause, the following conditions must be met:**

- Reporting procedures must be in place under the exposure control plan to ensure that all incidents involving blood or OPIM are reported to the employer before the end of the work shift during which the incident occurred.
- Reports of incidents must include the names of all involved employees and a description of the circumstances surrounding the exposure.
- All employees who are involved in any situation involving the presence of blood or OPIM, regardless of whether a specific exposure incident occurs, must be offered the full hepatitis B vaccination as soon as possible but no later than 24 hours after the incident.
- Bloodborne pathogens training must be provided to all affected employees.
- The specifics of the reporting procedure must be included in the bloodborne pathogens training.

### * Located on the web at:

http://www.cbs.state.or.us/external/osha/interps/1997/uofocoll.htm

Also see Appendix P, page 80 for details;

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## Determining Exposure…How to decide (continued)...

# First Aid and CPR-trained Employees and the Applicability of the BBP Rule

**INTEROFFICE MEMORANDUM** **IM-93-02**

**Department of Insurance and Finance**

March 3, 1993

TO: All OR-OSHA Enforcement Staff
**FROM:** Joe Miller, Manager of Enforcement

**THROUGH:** David Spark, Deputy Administrator

**SUBJECT:** Impact of New First Aid Rules on Bloodborne Pathogens Rules

The change OR-OSHA has made in our first aid rules has changed how the bloodborne rules are applied for first aid.

Because this is a significant change that may affect how employers wish to comply with the rules, Compliance Officers will need to discuss the rules with the employer in the opening conference. At that time the employer should be given the option of how they wish to comply with the rules from the following three options:

1. If the employer has or wishes to have an occupational nurse on staff or if they have someone who has first aid as a requirement in their job description they would have to comply with a11 of the requirements of the bloodborne pathogens rule.

2. If the employer has or wishes to have employees to have qualified first aid training and designates them to be the emergency first aid provider in the workplace, the employer will be required to offer post exposure hepatitis B vaccinations and have an exposure control plan as outlined in OR-OSHA Program Directive A-154 revised. First aid would not be Considered the primary job assignment of such designated first aid provider but would be considered a collateral duty.

3. If the employer wishes to use the nearest emergency care responder (911) to fulfill their first aid requirements of their emergency medical plan, the employer would not fall within the scope of the bloodborne pathogens standard. This would not prohibit an employer. from having or training some of their staff to be qualified first aid providers to administer first aid as good samaritans. As long as they are not designated first aid providers the bloodborne standard does not apply.

Please contact your supervisor if you have questions.

ORENF-775/TJM

c: OR-OSHA Consultative Staff
OR-OSHA Technical Staff
OR-OSHA Training Staff

**The mere posting of names of those employees with first aid training does not constitute an assignment.**

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# Determining Exposure…How to decide (continued)...

## Non-profit Organizations and Volunteers*

April 2, 1997

Mount Hood Nordic Ski Patrol

This is in response to your letter of February 19, 1997 and subsequent telephone conversation with David McLaughlin, requesting clarifications on 1910.1030, "Bloodborne Pathogens."

As you explained, the Mt. Hood Nordic Ski Patrol is a non-profit organization, there is no remuneration, financial or otherwise, and employees are not covered by workers compensation insurance while on normal patrols.

As long as these conditions remain unchanged, Oregon OSHA's rules do not apply to your organization during normal patrols.

Also, you explained that volunteer members do take part in Search and Rescue (SAR) missions for the various sheriff's offices, and are covered by that particular sheriffs office workers compensation insurance for the duration of that SAR mission.

Under these conditions, patrol members are covered by Oregon OSHA's rules, including the Bloodborne Pathogens rules. In these instances, it is the responsibility of the sheriff's office to ensure that all of the requirements of the Bloodborne Pathogens standard are met.

* ***Located on the web at:***

http://www.cbs.state.or.us/external/osha/interps/1997/heplbbp.htm


# Methods of Compliance

1) **Universal Precautions**
2) **Engineering and Work Practice Controls**
3) **Personal Protective Equipment**
4) **Housekeeping**

***Key Point*** ➡ ***" Where engineering controls will reduce employee exposure either by removing, eliminating or isolating the hazard, they must be used."***

**CPL 2-2.44D**

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## *Universal Precautions* vs. *Standard Precautions**

- An approach to infection control that treats all human blood and certain human body fluids as if they are infectious for HIV, HBV, and other bloodborne pathogens

- Universal precautions must be observed to prevent contact with blood or other potentially infectious materials.

- Because differentiation between body fluid types is difficult or impossible, all body fluids must be considered as potentially infectious materials.

- Based on the latest information on the transmission of infections in hospitals

- **Revised CDC Guideline for Isolation Precautions in Hospitals** recommend hospitals and patient care institutions implement ***Standard Precautions*** in place of Universal Precautions

- Standard Precautions correlates with Universal Precautions with minor revisions in nomenclature only. Additional categories of Airborne, Droplet, and Contact Precautions have been developed to manage specific diseases transmitted via such routes.

**** Located on the web at:***

http://info.med.yale.edu/ynhh/infection/precautions/intro.html

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# Methods of Compliance continued...

## 2) Engineering and Work Practice Controls

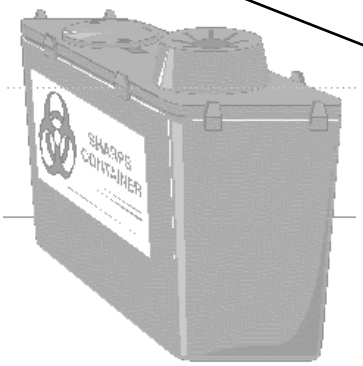
- ***" Where engineering controls will reduce employee exposure either by removing, eliminating or isolating the hazard, they must be used."***

  **CPL 2-2.44D**

- Selection of controls is dependent on the employer's exposure determination.

### What are "engineering controls"?

Controls that isolate or remove the bloodborne pathogens hazard from the workplace, such as sharps disposal containers, self-sheathing needles




Overfilling containers is an often-reported problem. Be sure your containers are:

- ✓ ***Large enough***
- ✓ ***Numerous enough***
- ✓ ***Designed and positioned to see into***
- ✓ ***Located conveniently***




## Methods of Compliance continued...

### 437-002-1030 Additional Oregon Rules for Bloodborne Pathogens

***Every employer with employees that use medical sharps in direct patient care must, at least annually, identify, evaluate, and select engineering and work practice controls, including safer medical devices.***

(1) This evaluation *must involve non-managerial front-line employees responsible for direct patient care.*

(2) This evaluation must be done on a facility-by-facility basis. When a facility has multiple departments with specific equipment and/or work practice concerns, the evaluation must involve employees from those departments.

(3) After a device is evaluated and selected, the employer must make a decision on implementing that device.

(a) If a device is not purchased because of employer or employee concerns, those concerns must be documented. However, if the employer does not purchase a device that had employee support, the employer must also document the employee support, as well as the justification for not purchasing that device.

(b) If a device is purchased without the consent of the employees who evaluated it, the employer must document the employees' concerns, as well as the employers' justification for purchasing that device.

(c) All documentation required by 437-002-1030(3) must be kept as part of the written Exposure Control Plan.

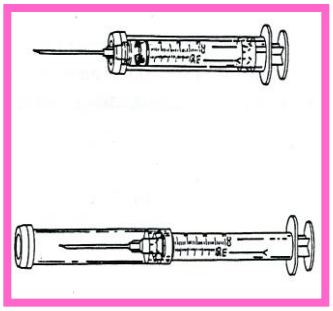
(4) The employer must ensure that all affected employees are informed on the process for selecting safer medical devices.

(5) Employees must be trained in the use of safer medical devices before the employees use those devices.

BIOHAZARD

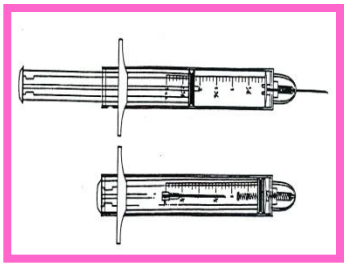
# *Examples of Engineering Controls… needle-less systems*

**Hypodermic syringes with "Self-Sheathing" safety feature**



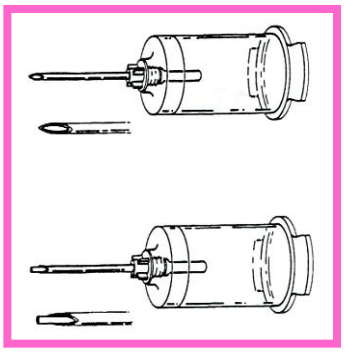
Self-sheathed protected position

**Hypodermic syringes with "Retractable Technology" safety feature**



Retracted protected position

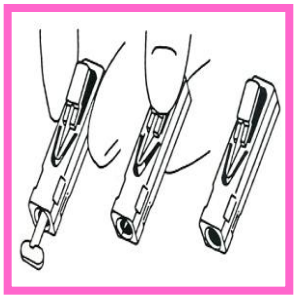
**Phlebotomy needle with "Self-Blunting" safety feature**



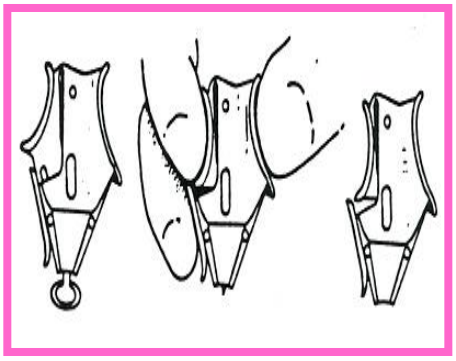
Blunted protected position

# *More Examples of Engineering Controls… needle-less systems*

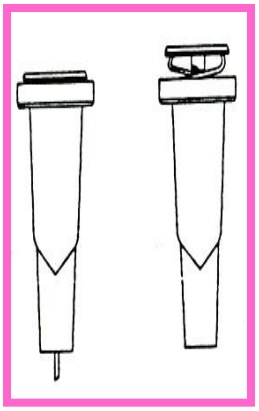
## Retracting lancets with safety features



Before During After

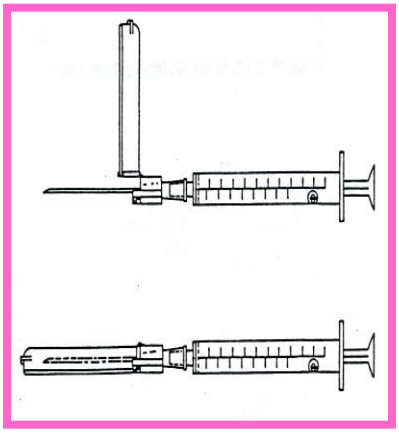


Before During After

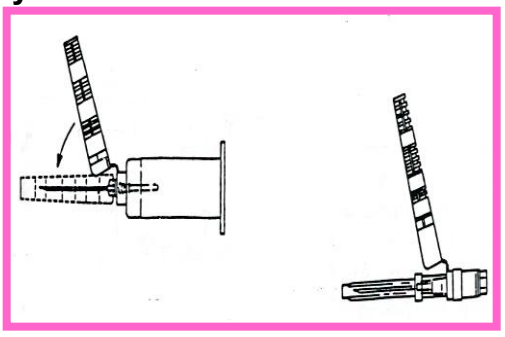


In use After use

## "Add-on" safety features



Attached to syringe needle



Attached to blood tube holder

BIOHAZARD

# Methods of Compliance continued...

## What are common "work practice controls?


These are practices that reduce the likelihood of exposure by changing the way a task is performed. Examples:

- Prohibiting recapping of needles using a two-handed technique
- Handwashing (see next page)
- Flushing mucous membranes after contact with body areas with blood or OPIM
- Appropriate procedures for laundry handling

Employers must provide handwashing facilities which are readily accessible to employees. If handwashing facilities are not possible, antiseptic hand cleanser and towels or towelettes must be available.

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# CDC Hand Hygiene Guideline Fact Sheet*
# (issued October 25, 2002)

Improved adherence to hand hygiene (i.e. hand washing or use of alcohol-based hand rubs) has been shown to terminate outbreaks in health care facilities, to reduce transmission of antimicrobial resistant organisms (e.g. methicillin resistant staphylococcus aureus) and reduce overall infection rates.

CDC is releasing guidelines to improve adherence to hand hygiene in health care settings. In addition to traditional handwashing with soap and water, CDC is recommending the use of alcohol-based handrubs by health care personnel for patient care because they address some of the obstacles that health care professionals face when taking care of patients.

- Handwashing with soap and water remains a sensible strategy for hand hygiene in non-health care settings and is recommended by CDC and other experts.

- When health care personnel's hands are visibly soiled, they should wash with soap and water.

- The use of gloves does not eliminate the need for hand hygiene. Likewise, the use of hand hygiene does not eliminate the need for gloves. Gloves reduce hand contamination by 70 percent to 80 percent, prevent cross-contamination and protect patients and health care personnel from infection. Handrubs should be used before and after each patient just as gloves should be changed before and after each patient.





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## CDC Hand Hygiene Guideline Fact Sheet (issued October 25, 2002) (continued)...

- When using an alcohol-based handrub, apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers, until hands are dry. Note that the volume needed to reduce the number of bacteria on hands varies by product.

- Alcohol-based handrubs significantly reduce the number of microorganisms on skin, are fast acting and cause less skin irritation.

- Health care personnel should avoid wearing artificial nails and keep natural nails less than one quarter of an inch long if they care for patients at high risk of acquiring infections (e.g. Patients in intensive care units or in transplant unit.

- When evaluating hand hygiene products for potential use in health care facilities, administrators or product selection committees should consider the relative efficacy of antiseptic agents against various pathogens and the acceptability of hand hygiene products by personnel. Characteristics of a product that can affect acceptance and therefore usage include its smell, consistency, color and the effect of dryness on hands.

*** Located on the web at:**

http://www.cdc.gov/od/oc/media/pressrel/fs021025.htm




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## CDC Hand Hygiene Guideline Fact Sheet (issued October 25, 2002) (concluded)...

- As part of these recommendations, CDC is asking health care facilities to develop and implement a system for measuring improvements in adherence to these hand hygiene recommendations. Some of the suggested performance indicators include: periodic monitoring of hand hygiene adherence and providing feedback to personnel regarding their performance, monitoring the volume of alcohol-based handrub used/1000 patient days, monitoring adherence to policies dealing with wearing artificial nails and focused assessment of the adequacy of health care personnel hand hygiene when outbreaks of infection occur.

- Allergic contact dermatitis due to alcohol hand rubs is very uncommon. However, with increasing use of such products by health care personnel, it is likely that true allergic reactions to such products will occasionally be encountered.

- Alcohol-based hand rubs take less time to use than traditional hand washing. In an eight-hour shift, an estimated one hour of an ICU nurse's time will be saved by using an alcohol-based handrub.

BIOHAZARD

# Methods of Compliance continued...

## 3) Personal Protective Equipment

- Employer must provide, at no cost to the employee, appropriate personal protective equipment such as, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices.

- PPE will be considered "appropriate" only if it does not permit blood or other OPIM to pass through or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

## 4) Housekeeping

- Ensure that the worksite is maintained in a clean and sanitary condition

- The employer must determine and implement an appropriate ***written*** schedule for cleaning and methods of decontamination based upon the location within the facility, type of surface cleaned, type of soil present, and tasks or procedures being performed in the area.

- ***Appropriate disinfectants*** include:
  - Diluted household bleach solution, ***freshly made within 24 hours of use*** at a 1:10 to 1:100 concentration
  - EPA-registered tuberculocides

# BIOHAZARD *Regulated Waste*

## *What is Regulated Waste?*

- **Liquid or semi-liquid** blood or OPIM
- **Contaminated items** that would **release** blood or OPIM in a liquid or semi-liquid state if **compressed**
- Items caked with **dried blood or OPIM** that are capable of **releasing** these materials during **handling**
- **Contaminated sharps**
- **Pathological and microbiological wastes** containing blood or OPIM

---

## *"HOW DO I DECIDE WHETHER SOMETHING IS REGULATED WASTE?**

"The compliance officer should not use the actual volume of blood as the determining factor as to whether or not a particular material is to be considered regulated waste. While 10ml. of blood on a disposable bed sheet would appear as a spot (***not*** regulated waste), the same amount of blood on a cotton ball would likely cause saturation and dripping (and hence would be considered ***regulated*** waste).

Similarly, an item may adequately contain these materials when in a static state yet liberate them when compacted in the waste container.

Instead the compliance officer should consider the potential for dripping of liquid blood or OPIM, or flaking off of dried blood or OPIM.

* ***Excerpt from Inspection and Citation Guidelines used by the compliance officer…***

# BIOHAZARD *Regulated Waste continued...*

## Sharps containers must be:

- Closeable
- Puncture resistant
- Leakproof
- Labeled or color-coded

## During use, containers must be:

- Easily accessible
- Maintained upright
- Replaced routinely (no overfill)

## When moved, containers must be:

- Closed immediately
- If leaking, put in secondary container
- If reusable, opened, emptied, cleaned in a manner that will not expose employees

- **Needles must be disposed of in a sharps container.**
- **Improperly disposed needles can injure housekeepers, custodians and other people.**

## *Laundry*

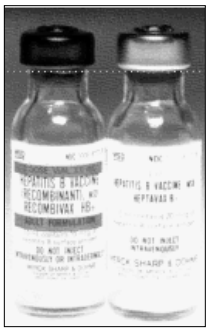
Contaminated laundry must be *handled as little as possible* with a minimum of agitation. It must be:

- ***Bagged/containerized*** where used
- ***Not sorted/rinsed*** where used
- Placed/transported in ***labeled or color-coded*** bags or containers
- Placed/transported in ***leak-proof*** bags or containers if leaks likely
- Employees must wear proper **PPE**.

BIOHAZARD

# Hepatitis B Vaccination...

## General



- Hepatitis B vaccine and vaccination series made available to all who have occupational exposure after training and within 10 working days of initial assignment
- Employee may decline to be vaccinated, signed declination statement on file
- Employee may change mind at any time, employer to provide vaccination at no charge
- **Employees trained to report exposures immediately after they occur, particularly because $H_{BIG}$, Hep B vaccine and HIV PEP (Post-Exposure Prophylaxis) are most likely to be effective if administered as soon after the exposure as possible**
- Post-exposure evaluation and follow-up, including prophylaxis must also be made available.
  - Services to be free to the employee at a reasonable time and place
    - performed or supervised by a physician or other health care professional
      - tests to be conducted by an accredited laboratory

**May personnel service/ temporary employment agencies require as a condition of employment that prospective employees obtain the HepB vaccination on their own?**

**Yes.** Since there is no employer-employee relationship established in instances of employment, OSHA standards do not apply.

BIOHAZARD

# Hepatitis B Vaccination continued...

## Vaccination Details regarding Health Care Personnel (HCP)

### Definition of Health Care Personnel

- Persons (e.g., employees, students, contractors, attending clinicians, public-safety workers, or volunteers) whose activities involve contact with patients or with blood or other body fluids from patients in a health-care, laboratory, or public safety setting
- The potential exists for blood and body fluid exposure to other workers, and the same principles of exposure management could be applied to other settings.

### Definition of Exposure for HCP's

A percutaneous injury (e.g., a needlestick or cut with a sharp object) or contact of mucous membrane or non-intact skin (e.g., exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, tissue, or other body fluids that are potentially infectious.

BIOHAZARD

# Hepatitis B Vaccination continued...

## More Vaccination Details regarding Health Care Personnel:

### Testing for Vaccination Effectiveness… Special Requirements for HCP

- HCP who have contact with patients or blood and are at ongoing risk for percutaneous injuries should be tested 1-2 months after completion of the 3-dose vaccination series for anti-HBs, i.e., antibodies to the Hep B virus (specifically the Hep B surface antigen (HBsAg).
- Persons who do not respond to the primary vaccine series should complete a second 3-dose vaccine series or be evaluated to determine if they are HBsAg-positive.
- Re-vaccinated persons should be re-tested at the completion of the second vaccine series. ***Persons who do not respond to an initial 3-dose vaccine series have a 30%-50% chance of responding to a second 3-dose series.***
- Persons who prove to be HBsAg-positive should be counseled regarding how to prevent HBV transmission to others and regarding the need for medical evaluation.*
- Non-responders to vaccination who are HBsAg-negative should be considered susceptible to HBV infection.*
- Booster doses of hepatitis B vaccine are not necessary, and periodic serologic testing to monitor antibody concentrations after completion of the vaccine series is not recommended.

* ***See pages 39-40*** for more detail on serological changes.

## *More Vaccination Details regarding Health Care Personnel:*

## *Hepatitis B Vaccination continued...*

### Some Clinical Features of Acute Hepatitis B Infection

- Most infections are subclinical, especially in children.
- Incubation period ranges from 6-24 weeks.
- Once infected—in a month or two typically—the lab can detect appearance of **HBsAg.**

Hepatitis B Surface Antigen

- **About 90-95% of acutely infected individuals recover without sequelae,** with regeneration of liver cells within 2-3 months.
- About 5-10% of acutely infected adults become chronically infected.

Conditions following as a consequence of a disease;

### Laboratory Diagnosis of Hepatitis B Infection

The diagnosis of HBV infection is generally made on the basis of serology. Six markers, all found in serum, are of particular diagnostic importance:

- **HBsAg**; this is Hepatitis B ***surface antigen***
- **HBV DNA**;
- **HBeAg**; this is ***Hepatitis B e antigen***. HBeAg is an alternatively processed protein of the pre-core gene that is ***only present in the serum under conditions of high viral replication.***
- Antibodies to HBsAg (anti-HBs)
- Antibodies to HBeAg (anti-HBe)
- Antibodies to HBc (anti-HBc)

Virtually all individuals infected with HBV, either acutely or chronically, will have detectable **HBsAg (Hepatitis B surface antigen)**.

Subjects who develop an immune response against HBV **develop antibodies against HBsAg.**


## More Vaccination Details regarding Health Care Personnel:



## Hepatitis B Vaccination continued...

### Chronic Infection with HBV

- About 5-10% of acutely infected adults become chronically infected.
- The natural history of chronic HBV infection can vary dramatically between individuals. Some will develop a condition commonly referred to as a chronic carrier state. These patients, who are still potentially infectious, have no symptoms and no abnormalities on laboratory testing. Nonetheless, some of these patients will have evidence of hepatitis on liver biopsy. **Acutely infected individuals who do not clear HBV continue to have serum HBsAg**; they are then deemed to have a ***chronic infection***.
- Some individuals with chronic hepatitis B will have clinically insignificant or minimal liver disease and never develop complications. Others will have clinically apparent chronic hepatitis.

### *Chronic Infection* with HBV can be either… *"replicative"* or *"non-replicative"*.

- In chronically infected individuals, infection can switch back and forth from "replicative" to "non-replicative".
- In "replicative" infections, patients usually have relatively high serum concentrations of viral DNA and detectable HBeAg.
- In most cases the chronic infection becomes "non-replicative". These individuals lose serum HBeAg and develop antibodies against HBeAg.
- One goal of treatment is to convert patients with chronic hepatitis B from a "replicative" state, (i.e., HBeAg positive) to a "non-replicative" state (i.e., HBeAg negative).

BIOHAZARD

# Post-Exposure Evaluation and Follow-up

**When an exposure incident is reported, the employer immediately makes available a medical evaluation with appropriate medical treatment as indicated. The evaluation should address at least the following items:**

- Document the route of exposure and how exposure occurred.*
- Identify and document the source individual if feasible and not prohibited by law.
- Obtain consent and test source individual's blood as soon as possible to determine infectivity and document the source's blood test results.**
- If the source is known to be infectious for HBV or HIV, testing need not be repeated to determine the known infectivity.
- Ensure that the health care professional is provided a copy of this regulation.
- Provide the exposed employee with the test results and information about applicable disclosure laws and regulations concerning the source identity and infection status.
- Obtain consent, collect, and test exposed employee's blood as soon as possible after the exposure incident.
- If the exposed employee consents to baseline blood collection but does not consent to HIV serologic testing, the employee's blood samples must be preserved for at least 90 days. If within 90 days of the exposure incident, the employee agrees to have the baseline sample tested, such testing must be conducted as soon as feasible.

**Notes:**

* See Appendix F, pages 69-70 for an example of an incident reporting format.

** See page 44 for Oregon rules on mandatory testing of source individuals;

# ***Post-Exposure Evaluation and Follow-up continued…***

**The employer makes sure:**

- Access to clinicians who can provide post-exposure care is available during all working hours, including nights and weekends
- The **health care professional** has a copy of the OSHA BBP standard and understands what's expected of him or her
- The **health care professional** receives a detailed description of the exposure incident
- All relevant medical information concerning the employee's vaccination status, etc., is furnished to the **health care professional**
- Employ***er*** obtains and provides the employ***ee*** with a copy of a written opinion from the **health care professional** within 15 days of the evaluation stating **two things**, as listed on the next page...

BIOHAZARD

# ***Post-Exposure Evaluation and Follow-up continued…***

## The Health Care Professional makes sure:

- All the circumstances surrounding the incident are evaluated and then decides what to do
- Medical decisions are based upon the **current CDC Guidelines*** for managing exposures
- HCP sends the employ***er*** a written report within 15 days of the evaluation stating **two things**:

1) **HBV Vaccination..**
   a) **Whether it is indicated; and…**
   b) **Whether it was given**

2) **Post-Exposure Evaluation…**
   **a)** that the employee **has been informed** of the results of the medical evaluation; and…
   **b)** he or she has also been told about any medical conditions resulting from the exposure which **require further evaluation or treatment.**

***Everything else is privileged information between employee and HCP and shall not be included on the written report.***

* ***Located on the web at:***

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm

# Hepatitis B Vaccination... and Post-Exposure Evaluation continued…

## Mandatory HIV Testing Following Occupational Exposure

**DEPARTMENT OF HUMAN SERVICES**

**OREGON HEALTH DIVISION**

**DIVISION 12**

**PROCEDURAL RULES***

**333-012-0269**

**Procedures for Mandatory HIV Testing Following Occupational Exposure to Body Fluids**

(1) The provisions of ORS 433.080, which describe the legal petition process for mandatory testing of a source person, may be invoked only if the petitioner

(a) Has received a substantial exposure, and at the time of exposure either was an exposed worker or was a patient exposed to a health care worker during the provision of health care services

(b) Has followed the procedures for soliciting voluntary HIV testing following occupational exposures to body fluids as outlined in OAR 333-012-0266

(3) Provides written documentation from a licensed health care provider that the petitioner meets the above criteria (subsections (a) and (b)). Once this documentation is received, mandatory testing must be done within three weeks following the petition, if, on adjudication, it is found that the petitioner's claim has merit.

(2) The exposed worker/patient must agree to undergo HIV testing in order to activate the mandatory provisions of ORS 433.080. Written certification from a health care provider that such a test specimen has been submitted must be provided at the time the petition is filed to request a court order for mandatory testing of the source person.

(3) The mandatory provisions of ORS 433.080 shall only be activated if decisions regarding a specific medical intervention, such as post-exposure prophylaxis, will be significantly influenced based on the results of the test.

***Located on the web at:**

http://arcweb.sos.state.or.us/rules/OARS_300/OAR_333/333_012.html

# Communicating Hazards…Two methods

1. **Labels and Signs**
2. **Information and Training**

## Labels…

- Labels on any containers containing blood/OPIM or regulated waste disposal, refrigerators, etc.
- Labels include this biohazard symbol
- Fluorescent orange/red
- Red bags/containers can substitute for labels


## Signs…

- Signs posted at entrance to specified work areas
- Fluorescent orange/red
- bearing the following legend


(Name of the infectious agent)
(Special requirements for entering area)
(Name, phone number of responsible person




# Table 1: *Labeling Requirements*

| Item | Biohazard Label | | Red Container |
|---|---|---|---|
| Regulated waste container (e.g., contaminated sharps containers) | X | or | X |
| Reusable contaminated sharps container (e.g., surgical instruments soaking in a tray) | X | or | X |
| Refrigerator/freezer holding blood or OPIM | X | | |
| Containers used for storage, transport or shipping of blood | X | or | X |
| Blood/Blood products for clinical use | X[1] | | |
| Individual specimen containers of blood or OPIM remaining at facility | X[1] | or | X |
| Contaminated equipment needing service (e.g., dialysis equipment; suction apparatus) | X[2] | | |
| Specimens and regulated waste shipped from the primary facility to another facility for service or disposal | X | or | X |
| Contaminated laundry | X[3] | or | X |
| Contaminated laundry sent to another facility that does not use universal precautions | X | or | X |

[1]No label is needed if universal precautions are used and specific use of container is known to all employees.

[2]Plus a label specifying where the contamination exists.

[3]Alternative labeling or color coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.

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# Communicating Hazards: Two methods continued...

## 2. Information and Training

- At no cost and during working hours
- At time of initial assignment to risk of exposure
- At least annually thereafter; sooner if changes in tasks or procedures occur
- Material appropriate to educational level of employee
- Covering key concepts in this workbook; see Appendix L, page 76 for details
- Must also cover site-specifics of employee's workplace/tasks and procedures

***An opportunity for interactive questions and answers with the trainer is a must!***

The trainer is expected to be knowledgeable in the subject matter as it relates to the specific workplace but not necessarily a health professional.


# Recordkeeping: Four Categories...

1. Medical Records
2. Sharps Injury Log
3. Training Records
4. OSHA 300 Log

## 1. Medical Records

- Kept confidential
- HBV vaccination status
- Any medical records sent to/received from health-care professional related to HBV exposure or immunization status
- **No HIV or other data may be collected**
- **Maintained for duration of employment plus 30 years**

## 2. Sharps Injury Log*

***"The employer shall establish and maintain (a log) for the recording of percutaneous injuries from contaminated sharps. It shall contain at a minimum:"***

- Type and brand of device involved in the incident
- Department or work area where the exposure incident occurred
- An explanation of how the incident occurred
- Maintained independent of the OSHA 300 log
- **Maintained for 5 years**

* See Appendix E, page 68 for sample log

***437-002-1035 Oregon Rule for Sharps Injury Log***

*Under Oregon's rule, the requirement to keep a sharps log applies to* **any** *employer who is required to maintain an Exposure Control Program,* ***regardless of the number of employees.***

BIOHAZARD

# ***Recordkeeping: Four Categories continued:***

3. ***Training Records***
4. ***OSHA 300 Log***

### 3. *Training Records*

- Dates of training
- Summary of content covered
- Trainer name/qualifications
- **Maintained for 3 years from the date training occurred**

### 4. *OSHA 300 Log*

- ***Recordable*** injuries include all percutaneous events, e.g.,
  - ✓ Needlesticks from bloody needles
  - ✓ Cuts from a sharp, bloody object
  - ✓ Fluids entering through an open wound, broken cuticle, or scrapped/chapped skin
  - ✓ These are considered to be "privacy concern cases".

- ***Nonrecordable*** events include...
  - ✓ Blood on intact skin
  - ✓ Blood on clothing or equipment
  - ✓ Being near an infected person
  - ✓ Touching an infected person

- If you have a "privacy concern case", do not enter the employee's name on the OSHA 300 Log. Instead, enter "**privacy case**" in place of employee's name.

- You must keep a separate, confidential list of case numbers and employee names for privacy concern cases in order to update the cases and furnish information to the compliance officer if asked to do so.

- An employer CAN use the 300 log as their sharps injury log, with the caveat that it must either be a ***separate page used solely for needlesticks*** or in a way which provides easily extractable data, such as a computer spreadsheet program.

# *Frequently Asked Questions for Health Care Personnel*

## What is the risk of infection after an occupational exposure?

### HBV

- Health-care personnel who have received hepatitis B vaccine and have developed immunity to the virus are at virtually no risk for infection. For an unvaccinated person, the risk from a single needlestick or a cut exposure to HBV-infected blood ranges from 6-30% and ***depends on the hepatitis B e antigen (HBeAg) status of the source individual.*** *

- Individuals who are both hepatitis B surface antigen (HBsAg) positive and HBeAg positive have more virus in their blood and are more likely to transmit HBV. *

### HCV

Based on limited studies, the risk for infection after a needlestick or cut exposure to HCV-infected blood is approximately 1.8%. The risk following a blood splash is unknown, but is believed to be very small; however, HCV infection from such an exposure has been reported.

### HIV

- **The average risk of HIV infection after a needlestick or cut exposure to HIV-infected blood is 0.3% (i.e., about 1 in 300). Stated another way, 99.7% of needlestick/cut exposures do not lead to infection.**

- **The risk after exposure of the eye, nose, or mouth to HIV-infected blood is estimated to be, on average, 0.1% (1 in 1,000).**

- The risk after exposure of the skin to HIV-infected blood is estimated to be less than 0.1%. A small amount of blood on intact skin probably poses no risk at all. There have been no documented cases of HIV transmission due to an exposure involving a small amount of blood on intact skin (a few drops of blood on skin for a short period of time). The risk may be higher if the skin is damaged (for example, by a recent cut) or if the contact involves a large area of skin or is prolonged (for example, being covered in blood for hours).

* ***See pages 39-40*** for more detail on serological changes.




# *Frequently Asked Questions for Health Care Personnel continued:*

## How many health-care personnel have been infected with bloodborne pathogens?

### HBV

The annual number of occupational infections has decreased sharply since hepatitis B vaccine became available in 1982 (i.e., there has been a 90% decrease in the number of estimated cases from 1985 to1996). Nonetheless, ***approximately 800 health-care workers become infected with HBV each year following an occupational exposure.***

### HCV

There are no exact estimates on the number of health-care personnel occupationally infected with HCV. However, studies have shown that 1% of hospital health-care workers have evidence of HCV infection (about 1.8% of the U.S. population has evidence of infection). The number of these workers who may have been infected through an occupational exposure is unknown.

### HIV

As of December 1998, CDC had received reports of 54 documented cases and 134 possible cases of occupationally acquired HIV infection among health-care workers in the United States since reporting began in 1985.

## What about exposures to blood from an individual whose infection status is unknown?

### *HBV–HCV–HIV*

If the source individual cannot be identified or tested, decisions regarding follow-up should be based on the exposure risk and whether the source is likely to be a person who is infected with a bloodborne pathogen. Follow-up testing should be available to all workers who are concerned about possible infection through occupational exposure.




# Frequently Asked Questions for Health Care Personnel continued:

## What specific drugs are recommended for postexposure treatment?

### HBV

If you have not been vaccinated, then hepatitis B vaccination is recommended for any exposure regardless of the source person's hepatitis B status. $H_{BIG}$ and/or hepatitis B vaccine may be recommended depending on your immunity to hepatitis B and the source person's infection status.

### HCV

Currently there is no recommended postexposure treatment that will prevent HCV infection.

### HIV

The Public Health Service recommends a 4-week course of two drugs (zidovudine and lamivudine) for most HIV exposures, or zidovudine and lamivudine plus a protease inhibitor (indinavir or nelfinavir) for exposures that may pose a greater risk for transmitting HIV (such as those involving a larger volume of blood with a larger amount of HIV or a concern about drug-resistant HIV). Differences in side effects associated with the use of these two drugs may influence which drug is selected in a specific situation.

These recommendations are intended to provide guidance to clinicians and may be modified on a case-by-case basis. Determining which drugs and how many drugs to use or when to change a treatment regimen is largely a matter of judgement. Whenever possible, consulting an expert with experience in the use of antiviral drugs is advised, especially if a recommended drug is not available, if the source patient's virus is likely to be resistant to one or more recommended drugs, or if the drugs are poorly tolerated.




# Frequently Asked Questions for Health Care Personnel continued:

## How soon after exposure to a bloodborne pathogen should treatment start?

### HBV

Postexposure treatment should begin as soon as possible after exposure, preferably within 24 hours, and no later than 7 days.

### HIV

Treatment should be started promptly, preferably within hours as opposed to days, after the exposure. Although animal studies suggest that treatment is not effective when started more than 24-36 hours after exposure, it is not known if this time frame is the same for humans. Starting treatment after a longer period (e.g., 1-2 weeks) may be considered for the highest risk exposures; even if HIV infection is not prevented, early treatment of initial HIV infection may lessen the severity of symptoms and delay the onset of AIDS.

## Has the FDA approved these drugs to prevent blood-borne pathogen infection following an occupational exposure?

### HBV

Yes. Both hepatitis B vaccine and $H_{BIG}$ are approved for this use.

### HIV

No. The FDA has approved these drugs for the treatment of existing HIV infection, but not as a treatment to prevent infection. However, physicians may prescribe any approved drug when, in their professional judgment, the use of the drug is warranted.




# Frequently Asked Questions for Health Care Personnel continued:

## OTHER SOURCES OF INFORMATION

### HBV and HCV

For additional information about hepatitis B and hepatitis C you can call the hepatitis information line at 1-888-4-HEPCDC (1-888-443-7232) or visit CDC's hepatitis website at: www.cdc.gov/ncidod/diseases/hepatitis/index.htm

Anyone believing they have had a reaction or adverse event should report it to his/her health care provider. The Vaccine Adverse Event Reporting System (1-800-822-7967) receives reports from health-care providers and others about vaccine side effects.

### HIV

Information specialists who staff the CDC National AIDS Hotline (1-800-342-2437) can answer questions or provide information on HIV infection and AIDS and the resources available in your area. The HIV/AIDS Treatment Information Service (1-800-448-0440) can also be contacted for information on the clinical treatment of HIV/AIDS. For free copies of printed material on HIV infection and AIDS, please call or write the CDC National Prevention Information Network, P.O. Box 6003, Rockville, MD 20849-6003, telephone 1-800-458-5231, Internet address **www.cdcnpin.org**

Additional information about occupational exposures to bloodborne pathogens is available on CDC's Hospital Infections Program's website at **www.cdc.gov/ncidod/hip** or on CDC's National Institute of Occupational Safety and Health's website at **www.cdc.gov/niosh** or call 1-800-35 NIOSH (1-800-356-4674).

# Appendices

Appendix A



# Sample Exposure Control Plan

**Facility Name:** _____

**Date of Preparation:** _____

We, the management staff of ____(name of facility)____ , are committed to the prevention of incidents or happenings which result in employee injury and illness: and to comply with the Oregon OSHA Bloodborne Pathogens Standard, OAR 437-02-1910.1030; and through this written exposure control plan, share responsibility to ensure performance under that responsibility; and hereby adopt this exposure control plan as an element of the Safety and Health Program.

A. ***PURPOSE***

The purpose of this exposure control plan is to:

1. Eliminate or minimize employee occupational exposure to human blood or other body fluids;

2. Identify employees occupationally exposed to blood or other potentially infectious materials (OPIM) while performing their regular job duties;

3. To provide employees exposed to blood and OPIM information and training. A copy of this plan is available to all employees during normal work hours at ____(location)_____ .

4. Comply with OR-OSHA Bloodborne Pathogen Standard, OAR 437-02-1910.1030.

B. ***EXPOSURE DETERMINATION***

The ____(name of facility)____ has performed an exposure determination for all common job classifications which may expected to incur occupational exposures to blood or OPIM. This exposure determination is made without regard to use of Personal Protection Equipment (PPE). The following is a list of those job classifications in this category:

(List job classifications meeting the requirements in section (c) (2).)

_____
_____

The following is a list of job classifications in which some employees may have occupational exposures. Not all of these employees are expected to incur exposure to blood or OPIM. The job classification, tasks, and procedures are listed below:

| Job Classification | Task/Procedure |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

C. ***COMPLIANCE METHODS***

1. **Universal Precautions:**

"Universal precautions" recognize all body fluids as though they are infected with bloodborne pathogens. This method of infection control requires the employer and employee to assume that all human blood and specified human body fluids are infectious for HIV, HBV, and other bloodborne pathogens. Where differentiation of types of body fluids is difficult or impossible, all body fluids are to be considered as potentially infectious.

2. **Engineering Controls and Work Practices:**

(List engineering controls and work practices meeting requirements of Section (d) (2).)

Examples of engineering controls:

* Self-sheathing needles
* Puncture-resistant disposal containers for contaminated sharps, orthodontia wire, or broken glass
* Mechanical needle recapping devices
* Bio-safety cabinets

Examples of work practice controls:

* Providing readily accessible handwashing facilities
* Washing hands immediately or as soon as possible after removal of gloves
* Equipment decontamination
* Prohibiting eating, drinking, smoking in work areas where these is a likelihood of exposure to bloodborne pathogens or OPIM.

Engineering controls and work practices will be used by all employees to eliminate or minimize occupational exposures at this facility. The following are engineering controls to be followed:

1. Sharps containers must:

   a. be puncture resistant;
   b. be properly labeled or color-coded for biohazards
   c. be leakproof on the sides and bottom;
   d. not allow employees to reach into the container by hand to retrieve sharps;
   e. be conveniently located to work area;
   f. be maintained in upright position; and
   g. be replaced routinely, not allowed to overfill.

2. Storage, transportation, or shipping containers must:

   a. be closeable;
   b. be properly labeled or color-coded for biohazards;
   c. be leakproof; and
   d. be puncture resistant.

The following are work practices to be used by employees with occupational exposure:

1. Wash hands with soap and water immediately or as soon as possible after removing gloves or other personal protective equipment.

2. Flush mucous membranes with water immediately or as soon as possible following contact of such body areas with blood or OPIM.

3. Do not bend, recap or remove contaminated needles unless no alternative is feasible or such action is required by a specific medical or dental procedure.

4. Do not shear or break contaminated needles.

5. If necessary to bend, recap or remove needles, use only a mechanical device or a one-handed technique.

6. Place contaminated reusable sharps in appropriate containers immediately or as soon as possible after use.

7. Immediately close sharps containers when full. Place in a secondary container if leakage is possible.

8. Do not eat, drink, smoke, apply cosmetics or lip balm, or handle contact lenses in work areas where there is a reasonable likelihood of occupational exposure.

9. Do not keep food and drink in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or OPIM are present.

10. Perform procedures involving blood or OPIM to minimize splashing, spraying, spattering, and generation of droplets.

11. Do not pipette/suction blood or OPIM by mouth.

12. Place blood or OPIM only in containers that prevent leaks during collection, handling, processing, storage, transport, or shipping.

13. If a container could be punctured by a specimen, it must be placed in a puncture-resistant secondary container.

14. Examine and properly decontaminate, if feasible, all equipment prior to servicing or shipping.

15. Attach a warning label to all parts or equipment that remain contaminated, and make sure all affected employees, the servicing representative and/or manufacturer, as appropriate, are informed of its status.

16. Wear gloves when you anticipate hand contact with blood, OPIM, mucous membranes, and non-intact skin is anticipated, and when you perform vascular access procedures and/or handle or touch contaminated items or surfaces.

17. Remove disposable gloves as soon as practical when contaminated or as soon as possible when torn, punctured, or ineffective as a barrier. Never wash disposable gloves for re-use.

18. Properly decontaminate utility gloves before re-using. Discard utility gloves if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration.
19. Remove garments immediately or as soon as possible when they are penetrated by blood or OPIM.
20. Remove all personal protective equipment before leaving the work area.
21. Place used personal protective equipment only in designated areas or containers for storage, washing, decontamination or disposal.
22. Do not pick up broken glassware directly with the hands. Use mechanical means such as a dust pan, tongs, or forceps.

3. **Personal Protective Equipment (PPE)**:

The following PPE will be provided at no cost to employees:

a. Body protection: (List items and when used.)

_____
_____

b. Gloves and Masks: (Indicate when & wear they will be used.)

_____
_____

c. Eye Protection: (List those tasks that require eye protection.)

_____
_____

d. Special PPE (List any specialty type PPE.)

_____
_____

The (list position) is assigned the responsibility to ensure and issue appropriate readily accessible PPE, without cost, to employees. Hypoallergenic glove, glove liners, powderless gloves, or other similar alternatives will be readily accessible to those employees who are allergic to the gloves normally provided.

All PPE will be removed prior to leaving the work area. All PPE will be cleaned, laundered, and disposed of by the employer at not cost to the employee. PPE, when removed, will be placed in the (designated area) for storage, washing, decontamination and disposal.

4. **Housekeeping:**

a. **General Housekeeping Procedures:**

All equipment and environmental and working surfaces will be cleaned and decontaminated using appropriate disinfectants and procedures as soon as feasible after any contact with blood or OPIM occurs.

Protective coverings will be used to cover equipment and environmental surfaces, and will be removed/replaced with contaminated and/or at the end of the work shift.

This facility will be cleaned and decontaminated according to the following schedule: (List areas, schedule and procedures, see section (d)(4) of the standard.

| Area | Schedule | Cleaner |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

b. **Regulated Waste:**

Contaminated sharps and other regulated waste will be discarded using only approved containers as described in section (d)(4)(iii) of the standard.

c. **Contaminated Laundry:**

Contaminated laundry shall be handled as little as possible with minimum agitation. It must be bagged or containerized where it was used and must not be sorted or rinsed where it was used.

Contaminated laundry must be placed and transported in bags or containers that are properly labeled for biohazards.

When contaminated laundry is wet and could possibly soak through or leak from a bag or container, it must be placed in leak-proof bags or containers.

Employees will wear proper personal protective equipment when handling contaminated laundry.

5. **Hepatitis B Vaccine, Post-Exposure Evaluation and Follow-up:**

a. **Hepatitis B Vaccination:**

The facility will offer at no cost to exposed employees the hepatitis B vaccination series, and the post exposure follow-up to those who have had an exposure incident within 10 working days after receiving the initial job assignment. ____(name position)____ is in charge of the hepatitis B vaccination program.

The (Person or position) will ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post exposure follow-up, including prophylaxis are:

(1 Made available at no charge to the employee, at a reasonable place and time;

(2 Performed or supervised by a licensed healthcare professional according to the recommendations of the CDC.

b. **Post Exposure Evaluation and Follow-up**

When an employee has an exposure incident, it will be reported to (list position) .

Following a reported exposure incident, the exposed employee will immediately receive a confidential medical evaluation including the following elements:

- Made available at no cost.
- Made available at a reasonable place and time.
- Performed by/or under supervision of a licensed physician or healthcare professional; and
- Provided according to recommendations of the U.S. Public Health Service current at the time evaluations and procedures take place.
- All tests are conducted by an accredited laboratory at no cost to the employee.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up. All post exposure follow-ups will be performed by (list name of clinic, physician, or department .

c. **Information Provided to the Healthcare Professional**

The (list name of position) will ensure that the healthcare professional responsible for the employee's hepatitis B vaccination is provided the following:

(1) A copy of Oregon Administrative Rules 437, Division 2, Subdiv Z, Toxic & Hazardous Substances: Bloodborne Pathogens (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;

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

(5) All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

d. **Healthcare Professional's Written Opinion**

The (list position name) will 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.

The healthcare professional's written opinion for HBV vaccination will be limited to whether HBV is indicated for an employee, and if the employee has received such vaccination.

**6. Communication of Hazards**

a. **Labels and Signs.** (list position responsible) will ensure that biohazard labels are on each container of regulated waste according to section (g) of the standard.

Warning labels must be affixed to all containers, including refrigerators and freezers containing blood or OPIM. Refer to the standard for label design requirements.

b. **Information and Training:**

(list position responsible) will ensure that training is provided at the time of initial assignment to tasks where occupational exposure to blood or OPIM may occur, and that it shall be repeated within 12 months of the previous training. The training program will be tailored to the education and language level of the employee, and offered during the normal work shift. The training will contain the following information:

(1) A copy of the regulation.

(2) Epidemiology and symptoms of bloodborne diseases;

(3) Modes of transmission of bloodborne pathogens;

(4) Employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

(5) Methods for recognizing tasks that may involve exposure to blood and OPIM;

(6) The use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and PPE;

(7) The types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;

(8) The basis for selection of personal protective equipment;

(9) Hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated.

(10) Actions to take and persons to contact in an emergency involving blood or OPIM;

(11) Procedure to follow if an exposure incident occurs, including the methods of reporting the incident and the medical follow-up that will be made available;

(12) Post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;

(13) Signs and labels and/or color coding required;

(14) An opportunity for interactive questions and answers.

**7. Recordkeeping**

a. **Medical Records**. (list position) is responsible for maintaining medical records as indicated below. Medical records are **strictly confidential**, and will not be reported to any person within or without the workplace without his/her express written consent. These records will be maintained for the duration of the employees employment plus 30 years and kept in (list location).

(1) Name and SSN of employee.

(2) A copy of the employee's 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 ;

(3) A copy of all results of examinations, medical testing, and follow-up procedures;

(4) The employer's copy of the healthcare professional's written opinion; and

(5) A copy of the information provided to the healthcare professional.

D. ***EVALUATION AND REVIEW***:

(list position(s)) is responsible for (annual or as needed) review of this program and its effectiveness, and for updating as needed.

Adopted this day _____ of 19 ___, by (top level manager).

Appendix B



# Sample Exposure Control Plan Safety Rules

1. If handwashing facilities are not available use antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes and wash hands with soap and running water as soon as feasible.

2. Wash hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

3. Wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

4. Contaminated needles will not be bent, recapped, broken or sheared or removed unless an alternative method of disposal is possible, or if it is required by a specific medical procedure, and must be done so using a mechanical device or one-handed technique.

5. Contaminated sharps must be placed in puncture resistant, labeled, leakproof containers until properly reprocessed.

6. Employees will not eat, drink, smoke, apply cosmetics or lip balm, or handle contact lenses in work areas where there is a likelihood of occupational exposure.

7. Food and drink will not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other OPIM are present.

8. Minimize splashing, spraying, splattering or generation of droplets when working with blood and/or OPIM.

9. Employees will not use mouth pipetting/suctioning of blood or OPIM.

10. Blood and OPIM will be placed only in properly labeled containers, and closed to prevent leakage during collection, handling, processing, storage, transport, or shipping. (Labeling requirements are not required if universal precautions are used when handling all specimens, containers are recognized as containing specimens, and the containers do not leave the facility).

I have read, understood, and will comply with the above safety rules. I understand that compliance with these safety rules is a condition of employment and that violation of any rule may result in progressive disciplinary action including termination.

_____ _____

Employee Date

Appendix C



***Confidential***

# HEPATITIS B VACCINE IMMUNIZATION RECORD

Vaccine is to be administered on: _____

Elected dates:

First _____

One month from elected date _____

Six months from elected date _____

Employee Name: _____

Date of first dose: _____

Date of second dose: _____

Date of third dose: _____

Antibody test results - pre-vaccine (optional): _____

Antibody test results - post vaccine (optional): _____

Time interval since last injection: _____

Employee Signature _____

Appendix D



# Sample Hepatitis B Vaccination Declination Statement

The following statement of declination of hepatitis B vaccination must be signed by an employee who chooses not to accept the vaccine. The statement can only be signed by the employee following appropriate training regarding hepatitis B, hepatitis B vaccination, the efficacy, safety, method of administration, and benefits of vaccination, and that the vaccine and vaccination are provided free of charge to the employee. The statement is not a waiver; employees can request and receive the hepatitis B vaccination at a later date if they remain occupationally at risk for hepatitis B.

## Declination Statement

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious material and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

_____ _____

Employee Signature Witness

_____

Name

_____

Address

_____

City/State/Zip

_____

Date

***Confidential:*** Place in employee medical record

**Establishment/Facility Name:** _____

# Sample Sharps Injury Log Year 2____

| Date | Case/Report No. | Type of Device (e.g., syringe, suture needle) | Brand Name of Device | Work Area where injury occurred [e.g., Geriatrics, Lab] | Brief description of how the incident occurred [i.e., procedure being done, action being performed (disposal, injection, etc.), body part injured] |
|---|---|---|---|---|---|
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29 CFR 1910.1030, OSHA's Bloodborne Pathogens Standard, in paragraph (h)(5), requires an employer to establish and maintain a Sharps Injury Log for recording all percutaneous injuries in a facility occurring from *contaminated* sharps. The purpose of the Log is to aid in the evaluation of devices being used in healthcare and other facilities and to identify problem devices or procedures requiring additional attention or review. This log must be kept in addition to the injury and illness log required by 29 CFR 1904. The Sharps Injury Log should include all sharps injuries occurring in a calendar year. The log must be retained for five years following the end of the year to which it relates. The Log must be kept in a manner that preserves the confidentiality of the affected employee.

Appendix F



***Confidential***

# SAMPLE: EXPOSURE INCIDENT REPORT

**(Routes and Circumstances of Exposure Incident)**

**Please Print**

DATE COMPLETED _____

EMPLOYEE'S NAME _____ SSN _____

HOME PHONE _____ BUSINESS PHONE _____

DOB _____ JOB TITLE _____

EMPLOYEE VACCINATION STATUS _____

DATE OF EXPOSURE _____ TIME OF EXPOSURE _____ AM___PM___

LOCATION OF INCIDENT (HOME, STREET, CLINIC, ETC. - BE SPECIFIC) _____

_____

_____

NATURE OF INCIDENT (AUTO ACCIDENT, TRAUMA, MEDICAL EMERGENCY - BE SPECIFIC):

_____

_____

_____

DESCRIBE WHAT TASK(S) YOU WERE PERFORMING WHEN THE EXPOSURE OCCURRED (BE SPECIFIC): _____

_____

_____

WERE YOU WEARING PERSONAL PROTECTIVE EQUIPMENT (PPE)? YES _____ NO_____

DID THE PPE FAIL? YES_____ NO_____ IF YES, EXPLAIN HOW: _____

_____

_____

WHAT BODY FLUID(S) WERE YOU EXPOSED TO (BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIAL - BE SPECIFIC)?

_____

WHAT PARTS OF YOUR BODY BECAME EXPOSED (BE SPECIFIC)? _____

_____

ESTIMATE THE SIZE OF THE AREA OF YOUR BODY THAT WAS EXPOSED:

_____

FOR HOW LONG? _____

*Continued from front*

DID A FOREIGN BODY (NEEDLE, NAIL, AUTO PART, DENTAL WIRES, ETC.) PENETRATE YOUR BODY?

YES _____ NO _____ IF YES, WHAT WAS THE OBJECT? _____

WHERE DID IT PENETRATE YOUR BODY? _____

_____

WAS ANY FLUID INJECTED INTO YOUR BODY? YES_____ NO_____ IF YES, WHAT FLUID_____

_____ HOW MUCH? _____

DID YOU RECEIVE MEDICAL ATTENTION? YES_____ NO_____ IF YES, WHERE? _____

_____

WHEN? _____ BY WHOM _____

IDENTIFICATION OF SOURCE INDIVIDUAL(S) _____

NAME(S) _____

DID YOU TREAT THE PATIENT DIRECTLY? YES_____ NO_____ IF YES, WHAT TREATMENT DID YOU PROVIDE (BE SPECIFIC)? _____

_____

_____

OTHER PERTINENT INFORMATION: _____

_____

_____

_____

_____

Appendix G



## SAMPLE: REQUEST FOR SOURCE INDIVIDUAL EVALUATION

Dear (Emergency Room Medical Director, Infection Control Practitioner):

During a recent transport of a patient to your facility, one of our prehospital care providers was involved in an event which may have resulted in exposure to a bloodborne Pathogen.

I am asking you to perform an evaluation of the source individual who was transported to your facility. Given the circumstances surrounding this event please determine whether our prehospital care worker is at risk for infection and/or requires medical follow-up.

Attached is a "Documentation and identification of source individual" form which was initiated by the exposed worker. Please complete the source individual section and communicate the findings to the designated medical provider.

The evaluation form has been developed to provide confidentiality assurances for the patient and the exposed worker concerning the nature of the exposure. Any communication regarding the findings is to be handled at the medical provider level.

We understand that information relative to human immunodeficiency virus (HIV) and AIDS has specific protections under the law and cannot be disclosed or released without the written consent of the patient. It is further understood that disclosure obligates persons who receive such information to hold it confidential.

Thank you for your assistance in this very important matter.

Sincerely,

Appendix H



***Confidential***

# DOCUMENTATION AND IDENTIFICATION OF SOURCE INDIVIDUAL

Name of Exposed Employee: _____

Name and Phone Number of Medical Provider Who Should be Contacted: _____

_____

INCIDENT INFORMATION

Date: _____

Name or Medical Record Number of the Individual Who is the Source of the Exposure

_____

NATURE OF THE INCIDENT

_____ Contaminated Needlestick Injury

_____ Blood or Bodyfluid Splash Onto Mucous Membrane or Non-Intact Skin

Other: _____

REPORT OF SOURCE INDIVIDUAL EVALUATION

Chart Review By: _____ Date: _____

Source Individual Unknown - Researched By: _____ Date: _____

Testing of Source Individual's Blood Consent: Obtained _____ Refused _____

CHECK ONE:

_____ Identification of source individual infeasible or prohibited by state or local law. State why if infeasible.

_____ Evaluation of the source individual reflected no known exposure to Bloodborne Pathogen

_____ Evaluation of the source individual reflected possible exposure to Bloodborne Pathogen and medical follow-up is recommended.

Person completing report: _____Date: _____

NOTE: Report the results of the source individual's blood test to the medical provider named above who will inform the exposed employee. Do not report blood test findings to the employer.

***HIV-related information cannot be released without the written consent of the source individual.***

Appendix I



***Confidential***

# EMPLOYEE EXPOSURE FOLLOW-UP RECORD

Employee's Name _____ Job Title _____

Occurrence Date _____ Reported Date _____

Occurrence Time _____

**SOURCE INDIVIDUAL FOLLOW-UP:**

Request made to _____

Date _____ Time _____

**EMPLOYEE FOLLOW-UP:**

Employee's Health File Reviewed by _____ Date _____

Information given on source individual's blood test results Yes _____ Not obtained _____

**Referred to healthcare professional with required information:**

Name of healthcare professional _____

By Whom _____ Date _____

**Blood Sampling/Testing Offered**

By Whom _____ Date _____

**Vaccination Offered/Recommended:**

By Whom _____ Date _____

**Counseling Offered:**

By Whom _____ Date _____

**Employee advised of need for further evaluation of medical condition:**

By Whom _____ Date _____

Appendix J

## Cleaning Schedule

| Area | Scheduled Cleaning (Day/Time) | Cleaners & disinfectants Used | Specific Instructions |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
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| | | | |

Appendix K



*Confidential*

# *Sample Exposure Incident Report*

Information provided to Dr. _____

Name: _____

Date of exposure incident: _____

Location of exposure incident: _____

_____

Route(s) of exposure: _____

_____

Results of Source Individual's tests if possible (unless prohibited by law):

_____

Description of employee's duties related to exposure incident:

_____

_____

_____

Circumstances under which exposure occurred: _____

_____

_____

Results of previous blood tests:

Test(s) conducted: _____

Test date: _____

Results: _____

Attachments:

1. Employee's medical records relevant to appropriate treatment, including vaccination status.
2. One copy of Oregon Administrative Rules, Chapter 437, Division 2/Z, Bloodborne Pathogens.

Appendix L



# Sample Training Outline

1. ***Introduction.*** Introduce self and other presenters as applicable. Class is designed as initial training for new employees and to satisfy annual follow-up annual training.

2. ***List objectives of Training.***

    1. Describe the primary diseases that the exposure control plan covers.
    2. Explain modes of transmission of HBV and HIV.
    3. Define the term “Universal Precautions.”
    4. Define the terms “engineering controls” and “work practice controls” and be familiar with those used in the workplace.
    5. List personal protective equipment that may serve as effective barriers to infectious fluids.
    6. Describe labeling, contaminated waste, and laundry procedures.
    7. Understand the general requirements of OAR 437, Div 2/Z, Bloodborne Pathogens.

3. ***Program Requirements***. Give an overview of basic exposure control plan elements, and where employees can obtain a copy.

4. ***HBV and HIV.*** Discuss epidemiology, symptoms, and modes of transmission of HBV and HIV.

5. ***Exposure Determination.*** Through question/answer discussion, have students determine those tasks that may result in an exposure incident.

6. ***Methods of Compliance.*** Discuss exposure controls and work practice controls. Have students give examples of each where they work.

7. ***Personal Protective Equipment.*** Show a video, or present samples of various types of personal protective equipment and how they form effective barriers to infectious fluids. Demonstrate proper wear, handling, decontamination, removal and disposal.

8. ***Post Exposure Procedures.*** Explain specific emergency procedures if an exposure incident occurs. Include notification, evaluation and follow-up procedures.

9. ***HBV Vaccine Information.*** Explain how effective and safe HBV vaccinations are, and the benefits of being vaccinated. Emphasize that the vaccinations are free to employees.

10. ***Question and Answer Period.*** Ensure an expert source is available to answer questions employees may have regarding any part of the exposure control plan or HBV/HIV disease.

11. ***Conclusion.*** Administer and review post-training test with students. (Tests need not be graded, but should serve as a tool to determine if a review is necessary)

Appendix M



# Sample Training Documentation Form

Name: _____
Job Title: _____
Employee Identification Number:_____
Employer/Facility: _____
Department: _____
Date of Employment: _____
Date of Initial Training:_____

Dates of Retraining/Initials: (Required annually and when there are changes in tasks or procedures.)

_____/_____ _____/_____
_____/_____ _____/_____

I have received training covering the following (please check the appropriate areas below:

__ Epidemiology and symptoms of bloodborne diseases.
__ Modes of transmission of HIV and HBV pathogens.
__ Preventative methods.
__ Proper use of PPE
__ Overview of the company Exposure Control Plan
__ HBV vaccination procedures
__ Recognizing tasks that may involve blood/OPIM
__ OR-OSHA Safety and Health Standards

I further understand my responsibility and will comply with all company safety and health policies and rules as described in the Exposure Control Plan.

Trainer's name and qualifications: _____

Employee Signature: _____
Date: _____

Appendix N



# *Sample Exposure Control Plan Quiz*

1. What two viruses are specifically mentioned in the bloodborne pathogens standard?

2. Of the two viruses mentioned, which is more infectious?

3. Of the two viruses mentioned, which causes more death as a result of infection?

4. The employer must train and offer the HBV vaccination series within _____ working days of a new employee's initial assignment.

5. How long is the HBV vaccine effective in producing antibody?

6. "Engineering controls" refer to the _____ of equipment.

7. "Work practice controls" refer to those work practices that _____ the potential for _____ to bloodborne pathogens.

8. What is the third line of defense (after engineering and work practices controls) against bloodborne pathogens?

9. What is the employer responsible for once an employee gives notification of an exposure incident?

10. Why is it important to get a "baseline" blood test if you have had an exposure incident?

Appendix O



| Hepatitis B Vaccination | Employer | Employee | Healthcare Professional |
|---|---|---|---|
| | Provide copy of Standard to HCP | | Receive copy of standard |
| | Provide training to employee | Receive Training | Receive referred employee |
| | Offer vaccination within 10 working days | Vaccination Offered<br>» Accept or Decline | Establish medical record<br>Evaluate employee for contraindications to vaccinations or prior immunity<br>Vaccinate employee, or<br>Discuss contraindications or immunity with employee<br>CONFIDENTIAL |
| | | Sign declination form<br>» May later accept | |
| | Receives copy of written opinion from HCP | | Record HCP written opinion |
| | Provide copy of written opinion to employee with 15 days. | Receive copy of HCP written opinion from employer | Provide copy of written opinion to employer |
| **Post-exposure Evaluation & Follow-up** | Direct employee to HCP | Report incident to employer | Evaluate exposure incident |
| | Send to HCP:<br>» Copy of standard<br>» Employee job description<br>» Incident report<br>» Source individual's HIV/HBV status (if known)<br>» Employee's Hepatitis B Vaccine status and other relevant medical information | | Arrange for testing of employee and source individual (if not already known)<br>Notify employee of results of all testing<br>Provide counseling<br>Provide post-exposure prophylaxis<br>Evaluate reported illnesses<br>CONFIDENTIAL |
| | Document event on OSHA 200 and 101 | | |
| | Receive HCP written opinion | | Send (only) the HCP written opinion to employer<br>» Documentation that employee was informed of evaluation results and need for any further follow-up; and<br>» Whether hepatitis B vaccine is indicated and if vaccine was received |
| | Provide copy of HCP written opinion to employee within 15 day of completed evaluation | Receive HCP written opinion from employer | |

Appendix P



# ***Collateral Duty Clause (issued January 15, 1997 )***

Excerpts:

As you may already know, Oregon OSHA has viewed any occupational exposure to blood or other potentially infectious materials (OPIM) as being within the scope of 1910.1030 and did not make any distinction between routine exposures and "collateral duty." However, we have recently adopted the collateral duty clause.

Employers with employees who are not routinely exposed to blood or OPIM ***may fall under the collateral duty clause***, in which case the hepatitis B vaccination would not need to be offered until an incident involving the presence of blood or OPIM occurs.

In order for an employer to qualify under the collateral duty clause, the following conditions must be met: Reporting procedures must be in place under the exposure control plan to ensure that all incidents involving blood or OPIM are reported to the employer before the end of the work shift during which the incident occurred;

Reports of incidents must include the names of all involved employees and a description of the circumstances of the incident, including the date and time, as well as a determination of whether an exposure incident, as defined by the standard, has occurred;

Exposure reports must be included on a list of such incidents and be readily available to all employees and provided to OR-OSHA upon request;

The specifics of the reporting procedure must be included in the bloodborne pathogens training;

All employees who are involved in any situation involving the presence of blood or OPIM,regardless of whether a specific exposure incident occurs, must be offered the full hepatitis B vaccination as soon as possible but no later than 24 hours after the incident. If an exposure incident as defined in 1910.1030 occurs, all other post-exposure follow-up procedures in accordance with the standard must be initiated immediately, and the employer must ensure that the medical provider is familiar with and follows the recommendations for post-exposure follow-up set forth by the Oregon Health Department and/or the Centers for Disease Control.

Bloodborne pathogens training must be provided to all affected employees;

Appropriate personal protective equipment, clean-up materials, and equipment must be provided.


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