




OSHA Bloodborne Pathogens Standard Overview for the Healthcare Industry




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1



What will be covered today?

- Discussion of OSHA's Bloodborne pathogen standard 1910.1030
 - Key elements for compliance
 - Information that is available on the internet
- 

2

Scope of Bloodborne Pathogen Standard

All employers whose employees have occupational exposure to blood or other potentially infectious materials (OPIM).

3

Key definitions

- **Blood:** human blood, human blood components, and products made from blood
- **Other potentially Infectious Materials (OPIM) human body fluids:** semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any unfixed tissue or organ from a human (living or dead)
- **Exposure incident:** specific eye, mouth, other mucous membrane, non-intact skin, or parental contact with blood or OPIM

4

Key definitions

- **Occupational Exposure:** reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM that may result from the performance of an employee's duties.
- **Universal Precautions:** is an approach to infection control. All human blood and certain body fluids are treated as if known to be infected with HIV, HBV or other bloodborne pathogens.
- **Work practice controls:** means controls that reduce the likelihood of exposure by altering the manner in which the task is performed.

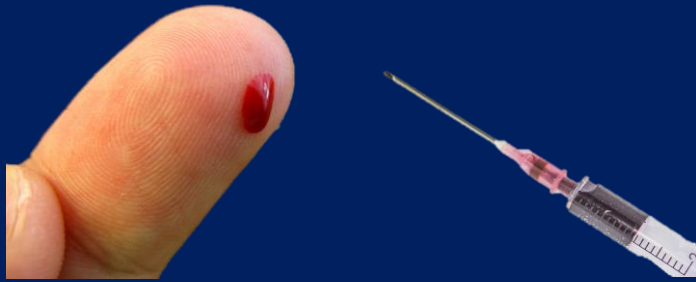
5

Bloodborne pathogens

- Hepatitis B Virus (HBV)
- Human Immunodeficiency Virus (HIV)
- Hepatitis C virus
- Others such as Zika, ebola, malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-Jakob disease, human T-lymphotrophic virus Type 1

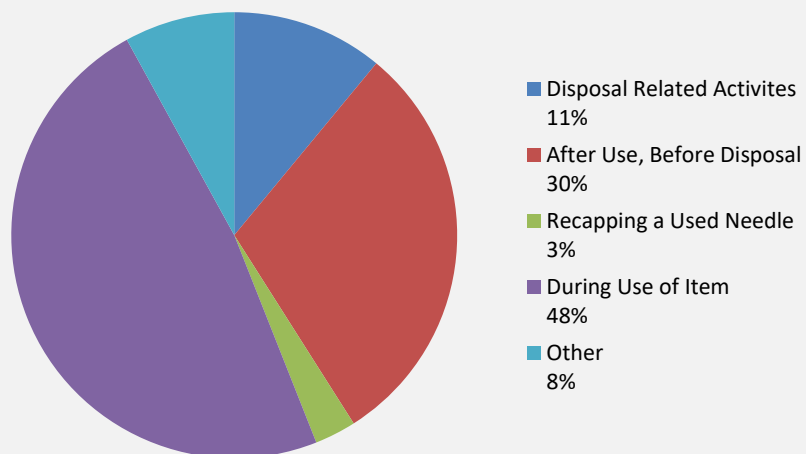
6

Needlestick injuries account for up to 80% of accidental exposures to blood!



7

Activities That Result in Needlesticks



EPINet, 2009

8

Exposure Control Plan

- Identifies and documents the tasks, procedures and job classifications covering instances where there is exposure to blood
- Explain the protective measures in effect and methods of compliance (SOP)
- Establish procedures for evaluating the circumstances of an exposure incident

9

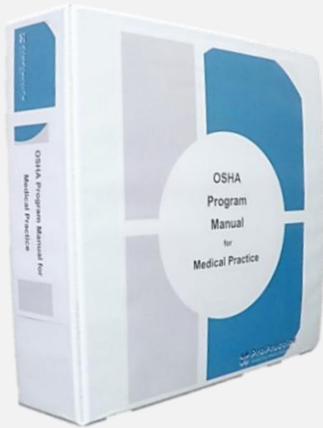
Elements of an Exposure Control Plan

- Exposure determination
- Engineering controls
- Work practices
- Personal Protective Equipment
- Disposal/decontamination
- Hepatitis B vaccination
- Post-exposure procedures
- Training
- Annual review
- Recordkeeping

10

Bloodborne Pathogen Exposure Control Plan

- A copy of the plan must be available to all employees



The plan must be updated:

- Annually
- To reflect changes in technology
- To reflect changes in safer sharps devices
- To reflect new/modified exposures

11

Exposure determination

- Job classifications where employees have occupational exposure
- Tasks and procedures with occupational exposure

12

Where do you have potential exposure to bloodborne pathogens?

- Procedures such as:
 - surgical procedures or operations
 - blood draws
 - invasive procedures where employees are exposed to body fluids
 - dressing of wounds
 - injections, blood sugar checks, IV's
 - many others.....

13

Engineering Controls

- First line of defense
- Protect user from contaminated sharp
- Safety designed medical devices
- Must be used unless safe medical device use is infeasible
- Active vs. passive devices
- Annual review of alternative devices mandated

14

What is considered a sharp?

- Syringe needles
- Lancets
- IV needles
- Blood collection devices
- Surgical scalpels
- Surgical instruments
- Insulin pens

15

Needlestick Prevention Act

- 5.6 million workers at risk for needlestick injury
- 600,000 – 800,000 needlestick injuries annually
- 75% of all exposure incidents are caused by disposable syringes
- Other sharps also covered

16

Work Practices

- Second line of defense
- Universal Precautions
- No recapping or bending of needles or other sharps
- Immediate disposal of contaminated sharps
- Frequent hand washing
- Procedures to minimize splashing, spraying, spattering or generation of droplets

17

Work Practices

- No eating or drinking where exposure may occur
- No food or drink stored where blood or OPIM present
- Specimens transported in leak-proof container
- Re-usable equipment must be decontaminated prior to re-use

18

Personal Protective Equipment

- Third line of defense
- Gloves
- Gowns or lab coats
- Eye protection or face shields
- Masks
- Scrubs are not considered PPE

19

Keys to PPE



- Availability
- Usability
- Appropriate level of protection
- Employees trained on how and when to use correctly


20


Glove usage

- Vinyl or nitrile alternatives to latex
- ~10% workers are latex sensitive
- Double gloving
- Powder vs powder free



21

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 **Safety and Health Topics:**
Latex Allergy

Allergy to latex was first recognized in the late 1970s. Since then, it has become a major health concern as an increasing number of people in the work place have been affected. Health care workers exposed to latex gloves or medical products containing latex are especially at risk. It is estimated that 8-12% of health care workers are latex sensitive. Between 1988-1992, the Federal Drug Administration (FDA) received more than 1000 reports of adverse health effects from exposure to latex, including 15 deaths due to such exposure.

As used in this discussion, latex refers to the natural rubber latex manufactured from a milky fluid that is primarily obtained from the rubber tree (*Hevea brasiliensis*). Some synthetic rubber materials may be referred to as "latex" but they do not contain the protein that produces latex allergy.

Related Safety and Health Topics

- [Occupational Asthma](#)
- [Bloodborne Pathogens](#)

Recognition

- [Occupational Latex Allergies](#): NIOSH Safety and Health Topic page, 1 page. Describes latex allergies and includes links to What's New Regarding Latex Allergies, NIOSH Publications on Latex Allergies, Other Latex Allergy Resources and Links.
- [Potential for Allergy to Natural Rubber Latex Gloves and other Natural Rubber Products](#): OSHA Technical Information Bulletin, (1999, April 12), 9 pages. Alerts field personnel to the potential for allergic reactions in some individuals using natural

Safety and Health Topics

- [Latex Allergy](#)
- [Recognition](#)
- [Evaluation](#)
- [Control](#)
- [Compliance](#)
- [Other](#)
- [Credits](#)

22

Sharps Containers

- Puncture resistant
- Identified (color coded/labeled)
- Stable and secure
- Lid to prevent sharps escaping
- Portable vs fixed
- Proximate to use of sharp
- Oversight to prevent overfilling
- Disposal



23

Handwashing facilities

- After gloves are removed
- After an exposure incident
- Location of sink
- Soap/water vs alcohol hand sanitizer



24

Cleaning and decontamination of equipment and surfaces

- EPA registered tuberculocides, sterilants and products registered against HBV and HIV specifically
 - see <http://ace.orst.edu/onfo/nain/lists.htm> (National Antimicrobial Information Network, products listing)
- Contact time is critical
- Wear PPE when using



25

Cleaning and decontamination of equipment

- Never use hands to reach into a container to remove contaminated sharps; use mechanical means
- Broken glassware shall not be picked up using hands
- Must be done as soon as feasible following contamination
- Containers for transporting contaminated sharps must also be decontaminated

26

Regulated Waste

- Closable
- Contain all contents
- Prevent leakage
- Color coded
- Location



27

Laundry

- Handle contaminated laundry as little as possible
- Place wet contaminated laundry in leak proof, labeled containers



28

Hepatitis B Vaccination

- Employees potentially exposed must be offered Hepatitis B vaccination series
 - Offered within 10 working days of assignment
 - Provided at no cost to employee
 - Employee may sign declination form rather than accept
 - Employer must make vaccination available unless employee has had series, testing has shown they are immune, or is contraindicated for medical reasons
 - If employee changes mind and requests the series, the employer must provide it

29

Hepatitis B Vaccination

- Employees potentially exposed must be offered Hepatitis B vaccination series
 - Vaccination must be administered per current US Public Health Service recommendations
 - Currently two accepted vaccination options (2 doses in 1 month, 3 doses in 6 months). See CDC information on Hep B vaccination
 - Tested for antibody to Hepatitis B surface antigen 1-2 months after completion of the vaccination series
 - Booster doses, when recommended by US Public Health Service, must be made available

30

Emergency Eye and Face Wash

- Location
- Operation
- Can the water be turned on easily
- Have employees been trained
- Water temperature



31

Post exposure follow-up

- Investigation
- Identify source individual and obtain consent for testing
- Employee blood testing
- Counseling
- Post exposure prophylaxis
- Healthcare professional's written opinion (evaluation and follow up)



32

Training

- Epidemiology, symptoms and transmission of bloodborne diseases
- Explanation of the Exposure Control Plan
- Recognize events that may involve exposure to blood
- Engineering controls available and how to use them
- Basis for selecting PPE including types

33

Training

- Use and limitations of safe work practices
- Disposal of contaminated sharps or regulated waste
- Hepatitis B vaccination
- Procedures to follow if an exposure incident occurs
- Medical follow up
- Post exposure evaluation

34

Recordkeeping

- Dates of training
- Summary of training
- Hepatitis B vaccination record
- Medical records to be confidential
- Sharps [contaminated] Injury Log
- OSHA 300 Log
- Annual review of ECP and medical devices

35

Focus Areas for Inpatient Healthcare Facilities

- There is no Emphasis Program at this time for hospitals, but...
- Unprogrammed complaints, referrals, etc at inpatient healthcare facilities may result in inspections with expanded scope to include five focus areas
 - Bloodborne Pathogens
 - Ergonomics (resident/patient transfers)
 - Slips/Trips/Falls
 - Workplace Violence
 - Tuberculosis

36

Other Possible Hazards

- Tuberculosis
- Chemicals
- Ergonomics
- Radioactive Material
- Laboratories
- Lasers
- Waste Anesthetic Gases
- Sterilants

37

What type of chemicals are used in your hospital?

- isopropyl alcohol
- formaldehyde
- glutaraldehyde
- topical and injected drugs
- acetic acid
- compressed gases
- many others.....



38

Chemical Hazards

- Written Hazard Communication Program
 - Includes list of hazardous chemicals
- SDS (Safety Data Sheet)
 - Know location and how to read
- Labels
 - Secondary container labeling
- Training
 - Initial and new hazard

39

Other Hazards

- Radioactive Material – X-rays, some meds
- Laboratories – Biological and chemical
- Lasers – some surgical procedures
- Waste Anesthetic Gases – nitrous oxide and chloroform
- Sterilants – Ethylene oxide, aldehydes

40

Top 10 Standards Cited for NAICS 622110 (Hospitals) FY 2019

- 1910.1030 Bloodborne Pathogens
- 1910.1200 Hazard Communication
- 1904.39 Reporting fatalities, hospitalizations, amputations
- 1910.303 Electrical: general requirements
- 1910.132 Personal Protective Equipment
- 1910.37 Maintenance, safeguards, operation of exit routes
- 1926.1101 Asbestos
- 1910.305 Electrical: wiring methods, components, and equipment
- 1904.32 Recordkeeping: annual summary
- 1910.147 Control of hazardous energy

41

Federal Inspections for NAICS 622110 (Hospitals) FY 2019

- 60 inspections of hospitals resulted in citations in FY2019 (closed cases); total of 148 federal inspections occurred—some were I/C, others still open
- Bloodborne Pathogens Standard citations accounted for 14% of all citations to hospitals
- Total penalties for hospital inspections in FY2016 were \$318,156
- \$32,691 total penalties for violations of the Bloodborne Pathogens Standard

42

Where can I get help?

- OSHA internet site www.osha.gov
- Colorado OSH Consultation at CSU (small employers only)
- Workers' Compensation Insurance Carrier
- Safety and Health Consultants
- Hospitals or Hospital Associations
- Infection Preventionists

43






The screenshot shows the OSHA website homepage. At the top, it features the U.S. Department of Labor logo and the text "Occupational Safety & Health Administration" and "www.osha.gov". A search bar is located to the right of the logo. Below the header, there is a "Site Index" with a list of letters from A to Z. The main content area is divided into several sections: "In Focus" with a highlighted article about OSHA's 2003-2008 Strategic Management Plan; "OSHA News" with a list of recent news items; "What's New" with a list of new content; "About OSHA" with a list of organizational details; "Audiences" with a list of target groups; "Find It! in DOL" with a list of resources; "Compliance Assistance" with a list of services; "Laws & Regulations" with a list of legal documents; "Cooperative Programs" with a list of partnerships; and "State Programs" with a list of state-specific resources. The website is designed with a blue and yellow color scheme.


44

[B TOP](#)
[Baggage Handling eTool en Español](#)
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[Beryllium](#)
[Beverage Delivery eTool](#)
[Bloodborne Pathogens](#)
[Blood Lead Laboratories, "OSHA Approved"](#)
[Booklets \(OSHA Publications\)](#)
[Brass and Ingot Manufacturing](#)
[Brownfields \(Recycling Industrial/Commercial Properties\)](#)
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45


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 **Safety and Health Topics:**
Bloodborne Pathogens & Needlestick Prevention


Workers in many different occupations are at risk of exposure to bloodborne pathogens. First aid team members, janitors, and nurses are examples of workers who may be at risk of exposure. In 1991, OSHA issued the Bloodborne Pathogens Standard to protect workers from this risk. In 2001, in response to the Needlestick Safety and Prevention Act, OSHA revised the Bloodborne Pathogens Standard 1910.1030. The revised standard clarifies the need for employers to select safer needle devices and to involve employees in identifying and choosing these devices. The updated standard also requires employers to maintain a log of injuries from contaminated sharps. The following commonly asked questions link to resources that provide useful safety and health information about bloodborne pathogens and needlestick prevention.


In Focus


- News Releases
- Revised Bloodborne Pathogen Standard
- New Interpretation Letters

Safety and Health Topics

- **Bloodborne Pathogens & Needlestick Prevention**
- Compliance
- Hazard Recognition
- Possible Solutions
- Post-exposure Evaluation
- Additional Assistance
- Credits

 **What standards apply?**
 OSHA Standards | Preambles to OSHA Standards | OSHA Directives
 Review Commission Decisions | Standard Interpretations and Compliance Letters

 **How do I recognize bloodborne pathogen hazards?**
 Hazard Recognition | Healthcare eTools

 **What are some examples of possible solutions for workplace hazards?**
 Control Programs | Safer Needle Devices | Decontamination

46

Return to Techlinks




Hospital eTool

- ▶ Scope
- ▶ Site Map
- ▶ User Guide
- ▶ Expert Systems
 - Fire Safety
 - LOTO
 - Standards
- ▶ References
- ▶ Glossary
- ▶ Credits
- ▶ Comments

Hospital eTool

Click on the area for more specific information.




The OSH Act of 1970 strives to "assure safe and healthful working conditions" for today's workers, and mandates that employers provide a safe work environment for employees. Hospitals and personal care facilities employ approximately 1.6 million workers at 21,000 work sites. There are many occupational health and safety hazards throughout the hospital. This eTool* focuses on some of the hazards and controls found in the hospital setting, and describes standard requirements as well as recommended safe work practices

47

Disclaimer

- **This information has been developed by an OSHA Compliance Assistance Specialist and is intended to assist employers, workers, and others as they strive to improve workplace health and safety. While we attempt to thoroughly address specific topics, it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in a presentation of this nature. Thus, this information must be understood as a tool for addressing workplace hazards, rather than an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards. Likewise, to the extent that this information references practices or procedures that may enhance health or safety, but which are not required by a statute, regulation, or standard, it cannot, and does not, create additional legal obligations. Finally, over time, OSHA may modify rules and interpretations in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit OSHA's website at www.osha.gov.**



48