

# BLOODBORNE PATHOGENS (BBP) TRAINING

*Developed by staff and faculty at the University of Washington, School of Dentistry*

2016



# Why You Need BBP Training

- This module is designed to provide you with the Bloodborne Pathogen (BBP) training required annually by State and Federal law.



- <http://apps.leg.wa.gov/WAC/default.aspx?cite=296-823>
- [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10051](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051)

# What You Will Accomplish with this Training

- This training will:
  - ▣ familiarize you with the bloodborne pathogens (BBP) found in dentistry
  - ▣ identify the risk they pose to you & to patients
  - ▣ teach you preventive measures to avoid exposure risk
  - ▣ explain the SOD exposure control plan
  - ▣ fulfill your annual state training requirement

# Bloodborne Pathogens - Defined

- BBP are microorganisms present in blood which can result in serious diseases
- “Blood” includes:
  - ▣ human blood & its components
  - ▣ products made from human blood
  - ▣ medications derived from blood (e.g. immune globulins)

**NOTE: BBPs are prevalent in dental practice & simple to avoid exposure**

# Pathogens and Dentistry

- Several pathogens including viruses, bacteria, fungi, & parasites are potentially harmful.
- Due to their prevalence, **viral & bacterial** infections are high risk in dentistry.
- Viruses are small infectious agents causing colds, flu, hepatitis, HIV, & herpes.

All can be contracted through accidentally during the normal work day and considered as occupational exposures.

# Pathogens and Dentistry

- Bacteria are living organisms that **do not need a living host**, making them highly infectious.
- Bacteria can cause intestinal diseases (i.e. salmonella & E. coli) & tuberculosis (TB).
- Viruses **need a living host** in order to reproduce.



**They can be present on any surface  
in your office**

# Pathogen Transmission

1. **Inhalation** occurs when organisms are carried on respiratory droplets in the air entering the respiratory system (i.e. colds, flu, TB are transmitted by coughing/sneezing spreading the microorganism through the air.
2. **Ingestion** by consuming contaminated food & from contaminated hands. Careful hand washing is critical!



Hep A can be contracted by failure to completely wash hands after restroom use.

# Pathogen Transmission

3. **Bloodborne** contact is the primary focus of this training, as it poses the highest risk of disease transmission to the dentist and team.





# Transmission Pathways in Dentistry

- BBPs can be transmitted from person to person by:
  - mucous membranes
  - an airborne pathway
  - a break in the skin
  
- How can this happen?
  - Splash to the eyes from a 3-way syringe, model trimmers, etc.
  - Aerosol spray from handpieces, scalers by inhaling the mist
  - Breaks in the skin from a needle stick, cuts from sharp instruments, (i.e. enamel hatchets, needles, bur, etc.)



# Transmission Pathways in Dentistry

- Body fluids other than blood, such as saliva and tears may be contaminated with blood and therefore contain BBPs.
- Exposure to any body fluid through the pathways described may pose a risk of disease transmission to the dentist and any team member who may have come in contact with the fluid.



# Transmission Pathways in Dentistry

- BBPs enter the body if there is a break in the skin. Note, cuts or needle sticks with blood contaminated instruments can transmit the pathogen through the skin.
- Cracked, cut, burned, abraded or other openings in the skin are more susceptible if that area comes in contact with a BBP.

**BBPs cannot penetrate intact skin**



# Where We Commonly Find BBPs



sharp instruments



burs



irrigating syringes



countertops



suturing



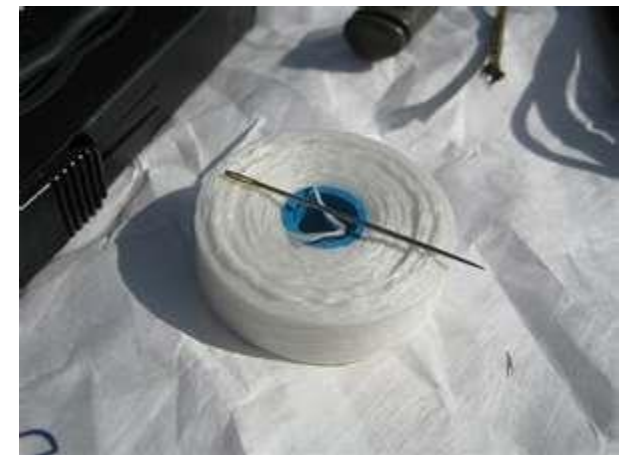
extracted teeth



used needles



contaminated gauze



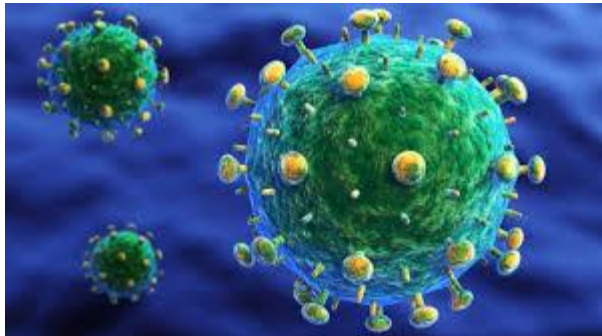
floss threaders

# Risk of Infection

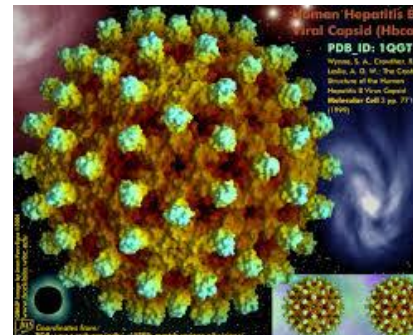
- Even though **most exposures do not result in infection**, the risk is not to be considered lightly. Risk variables are:
  - Pathogen involved
  - Type or route of exposure
  - Amount of bacteria or virus in the infected blood when exposed
  - Amount of infected blood involved
  - Whether or not a post-exposure treatment was taken
  - Immune status & specific response of the infected worker

# Primary BBP Concerns for Dental Workers

- Due to common use of sharps, the primary BBPs of concern are the following:
  - ▣ hepatitis B (HBV)
  - ▣ hepatitis C (HCV)
  - ▣ human immunodeficiency virus (HIV)



HIV virus



HBV virus



HCV virus

# Hepatitis B and Hepatitis C

- Hepatitis viruses (HBV & HCV) are very infectious organisms affecting the liver. These infections can be acute (short term) or become chronic (lasting a person's lifetime). Hepatitis infections can range from damage that is mild, become severe and even cause death.
- HBV can survive outside the body for more than 7 days in a dry state, such as **countertops or contaminated needles**. HBV is 100 times more contagious than HIV!

# Risk of BBP Transmission Statistics

## Occupational transmission in the dental setting



The risk of infection following a needlestick/cut from a positive (infected) source is as follows:

- HBV: 6% - 30%  
(many variables)
- HCV: 1.8%  
(range 0%-10%)
- HIV: 0.1%



# Hepatitis B

- The incubation period varies from 45 – 180 days but averages 60 – 90 days.
  - ▣ Onset of acute disease is typically gradual
  - ▣ About 30% of infected individuals do not demonstrate any symptoms
- The course & outcome of HBV infection vary significantly depending on the age at which one becomes infected.

**Clinical illness occurs in 30 – 50% of older children & adults.**

# Hepatitis B

- Death rate due to HBV is approximately 1,800 per year, but most acute HBV infections in adults result in complete recovery with an immunity from future infection. Approximately 10% of adults who are infected develop chronic infection and **become carriers**.
- Persons with chronic HBV often have no symptoms, but they are at higher risk of developing cirrhosis or liver cancer which can lead to premature death. Once infected with the virus, one becomes immune to future hepatitis B infections.

# Hepatitis C

- HCV is the **most common chronic bloodborne infection** in the U.S. An estimated 3.2 million people in the U.S. are living with chronic HCV infection.
  - ▣ Estimated 29,700 new infections in 2013
- HCV may be responsible for 60 - 70% of all chronic liver disease in the U.S. and is the leading indicator for liver transplants. It is estimated that 17,000 persons in the U.S. die from HCV-related illness annually. This is almost 10 times the deaths estimated due to HBV-related illness.

<http://www.cdc.gov/hepatitis/Resources/Professionals/PDFs/ABCTable.pdf>

# Hepatitis C

- Currently, there is no broadly effective treatment; antivirals & new medications are being tested, but there is no preventative vaccine for HCV.
- The average incubation period is about 14 – 180 days weeks, on an average 45 days.
- There is considerable concern & distress for those waiting to determine whether or not they may have contracted the hepatitis C virus due to exposure.

# Co-infections

- Contracting 2 or more infections at the same time is called co-infection.
  - ▣ For example, someone with HIV/HCV co-infection has both the hepatitis C virus and human immunodeficiency virus.



Consider this possibility when testing for a particular pathogen.

# Bloodborne Pathogen Statistics

Pathogen	Disease	General Facts	Clinical Symptoms
human immunodeficiency virus (HIV)	AIDS	<ul style="list-style-type: none"> <li>• Attacks the human immune system</li> <li>• Estimated 1.2 million in the US are living with HIV and 1 in 5 of those are unaware of their infection</li> <li>• No cure; no vaccine available</li> </ul>	<ul style="list-style-type: none"> <li>• Symptoms vary, ranging from no symptoms to moderate flu like symptoms</li> <li>• Most infected with HIV eventually develop AIDS</li> </ul>
hepatitis B virus (HBV)	hepatitis B	<ul style="list-style-type: none"> <li>• HBV can survive outside the body for at least 7 days</li> <li>• 100 times more contagious than HIV</li> <li>• Estimated 43,000 new infections in 2007</li> <li>• No cure but preventative vaccine</li> </ul>	<ul style="list-style-type: none"> <li>• Some may not have symptoms</li> <li>• Flu like symptoms</li> <li>• Fatigue</li> <li>• Abdominal Pain</li> <li>• Loss of Appetite</li> <li>• Nausea/Vomiting</li> <li>• Joint Pain</li> </ul>
hepatitis C virus (HCV)	hepatitis C	<ul style="list-style-type: none"> <li>• Most common chronic bloodborne infection in the US</li> <li>• Estimated 17,000 new infections in 2007</li> </ul>	<ul style="list-style-type: none"> <li>• Many never have symptoms</li> <li>• Flu-Like symptoms</li> <li>• Jaundice</li> <li>• Fatigue</li> <li>• Abdominal pain</li> <li>• Nausea</li> </ul>

# Summary of Exposures: WA State

- Washington State Department of Labor conducted a 7 year study (1995 – 2001) of all percutaneous injuries in WA. This study published in 2006 reported a total of 4,695 exposures submitted by health care workers, of which 924 (20%) were reported by Dentists, Hygienists and Dental Assistants (BMC Public Health, 2006).
- Injuries during this period occurred primarily in general dental clinics and offices while incidents in dental specialty clinics were only 9% of the total 924 incidents.

# Summary of Exposures: WA State

- The number of incidents increased from 78 reported exposures in 1995 to 216 in 2001. Without safer practices and continued training the number of incidents were predicted to increase.
- In addition to the emotional impact when exposed to a BBP, the financial impact is not trivial. The estimated direct medical costs associated with initial assessment ranged from \$539 - \$672 while follow up & treatment ranged from \$360 - \$1,383 per injury.



# Sharps Injuries: WA State (1995-2001)

Dental Assistant	Dental Hygienist	Dentist
<ul style="list-style-type: none"><li>• 578 or 86% involves syringe needles</li><li>• 60 or 9% involved burs, explorers, scalers or scalpels</li><li>• 18 or 3% involved suture needle</li><li>• 11 or 2% other devices</li></ul>	<ul style="list-style-type: none"><li>• 147 or 91% involved syringe needles</li><li>• 14 or 9% dental instruments</li></ul>	<ul style="list-style-type: none"><li>• 54 or 82% involved syringes/needles</li><li>• 7 or 11% involved dental instruments</li><li>• 5 or 7% involved suture needles</li></ul>

# Significance of BBP Exposures in Dentistry

- Washington practitioner statistics for the year 2000
  - 5,760 Dental Hygienists
  - 8,240 Dental Assistants
  - 43,500 Nurses
- Washington needle stick injuries from 1995 – 2001
  - 828 needle sticks for Dental Hygienists & Assistants combined
  - 1048 needle sticks for Nurses
- The risk to dental professionals is higher!

# Exposure Control Plan

- Washington **state law requires** dental practices to have an exposure control plan. This written plan is designed to eliminate or minimize occupational exposures.
- The School of Dentistry complies with this requirement of:
  - **updating the plan annually** to reflect changes in tasks, procedures & positions that affect occupational exposure, including technological changes that eliminate or reduce occupational exposure.
  - appropriate documentation & commercially-available effective **safer medical devices** are in place.
  - **soliciting input** from frontline workers to identify, evaluate & select effective engineering & work practice controls.

# Exposure Control Plan: Components

- ❑ An exposure control plan includes the following requirements:
  - ❑ Exposure determination (identification of which employees can reasonably anticipate contact with blood and other bodily fluids)
  - ❑ Use universal precautions
  - ❑ Engineering controls (devices that isolate or remove BBP hazards)
  - ❑ Work practice controls (practices that reduce possibility of exposure by changing the way a task is performed)
  - ❑ Personal Protective Equipment (PPE)
  - ❑ Hepatitis B vaccinations & other recommended immunizations
  - ❑ Post exposure evaluation & follow-up
  - ❑ Labels and signs to communicate hazards
  - ❑ Information and training for workers
  - ❑ Recordkeeping



# Occupational Exposures

- ❑ “Occupational Exposure” means reasonably anticipated BBP contact with skin, eye or mucous membranes that may result during the performance of an employee’s duties.



All health care workers are encouraged to follow **best work practices** to avoid exposure to blood and other bodily fluids.

# Exposure Control Plan: Determination

- The written exposure control plan must include a list of job classifications in which all workers have occupational exposure and a list of job classifications in which some workers have occupational exposure.
  - This must also include a list of the tasks and procedures performed by those workers that result in their exposure.



## Bloodborne Pathogens Manual

University of Washington  
School of Dentistry



# Exposure Control Plan: Determination

- Who is at risk on the job?
  - ▣ It is important to know **by job classification**, which employees should reasonably anticipate contact with blood & other body fluids.
  - ▣ Dentists, students, lab technicians, hygienists and dental assistants should always anticipate contact with blood & body fluids.
  - ▣ Front desk employees & others with direct patient contact **may** also come in contact with blood & body fluids.

# Exposure Control Plan: Determination



Example from UW School of Dentistry's Exposure Control Plan - Job classifications in which ALL employees have occupational exposure to bloodborne pathogens:

Job Title	Department/Location	Tasks
Student Dental Providers UW School of Dentistry Faculty Dental Assistant Staff Researchers/Labs Assistants Sterilization Technicians	Predoctoral and Post-doctoral clinics Sterilization services Research labs (working with human subjects)	Treatment of patients Decontamination of instruments Handling of tissue

The following job classifications at UW School of Dentistry in which some employees have occupational exposure:

Job Title	Department/Location	Task
Receptionists, Dental Records Staff, Dispensary Clerks	Patient Services Front Office Clinic Dispensaries	Possible Patient Contact
Administrative Staff	Administration – Location varies	Possible Patient Contact



# Exposure Control Plan: Universal Precautions

- Practices must implement the use of universal precautions.
- Universal precautions = Treating all blood and other potentially infectious materials (OPIM) as if infectious with bloodborne pathogens.



# Exposure Control Plan: Engineering Controls (Safer Medical Devices)

- Syringes with a sliding sheath that shields the attached needle after use
- Needles that retract into a syringe after use
- Scalpels with sliding/locking guards
- Instrument cassettes
- Needle stick shields



# Safe Work Practices

- Attach or remove blade using a hemostat rather than handling it directly with the fingers.



no



yes

<https://www.youtube.com/watch?v=cqUxQ9jKMkg>

# Safer Medical Devices



# Exposure Control Plan: Engineering Controls (Safer Medical Devices)

- ❑ Use approved sharps disposal containers
- ❑ Sharps containers should be:
  - ❑ Closable
  - ❑ Puncture-resistant
  - ❑ Leak-proof
  - ❑ Labeled or color-coded
  - ❑ Upright & visible where sharps used
  - ❑ Disposed of when 2/3 full
    - ❑ **not overfilled**



# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

- Completing tasks safely helps to minimize exposure to blood or other potentially infectious materials.
- Don't bend, recap or remove needles without having appropriate safety mechanisms in place such as stick shields.
  - ▣ When recapping, use the one handed "Scoop and Swoop" method with a needle shield in place. Never hold the cap during the "Scoop and Swoop" technique.
  - ▣ Don't shear or break needles.
  - ▣ Immediately place contaminated reusable sharps in appropriate containers until properly decontaminated.

# Safe Work Practices



yes



no

- ❑ **Do not** use 2 hands to recap a syringe.
- ❑ Use the “Protector” cardboard shield.
- ❑ Recap needles using 1-hand scoop technique.

[www.certol.com/LandingPages/ProTector.aspx](http://www.certol.com/LandingPages/ProTector.aspx)

# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

- ❑ Wash hands after each glove use & immediately or ASAP after exposure.
- ❑ Alcohol hand sanitizers may be used but should **not replace** hand washing.
- ❑ Remove PPE before leaving work/treatment area.





# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

- Although very effective when used routinely, PPE cannot completely eliminate the risk of an exposure incident; accidents happen.
- Exam and surgical gloves do not protect against sharp injuries, & unexpected splashes may expose eyes & mucous membranes to possibly infectious materials.
- In case of an exposure to blood or other fluids:
  - ▣ Perform basic first aid to cleanse the wound & affected area.
  - ▣ Report the injury immediately.
  - ▣ Follow instructions for obtaining medical attention, follow up & reporting.

# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

- Thoroughly clean the affected area
  - ▣ Needle sticks and non-intact skin exposures should be scrubbed thoroughly with warm water and sudsy soap for 15 minutes, perform first aid and seek medical care as directed in the School of Dentistry Bloodborne pathogen exposure policy.
  - ▣ Flush exposed eyes (while holding eyelids open) with water for 15 minutes soon as possible (prior to seeking medical care) using emergency eye wash stations.
- Report exposures immediately by contacting the SOD exposure hotline (206) 351-2268.



# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

- The School of Dentistry assigns bloodborne exposure counseling responsibilities to a limited number of school employees providing support in the event of an exposure.
- The exposure hotline is used to ensure a counselor is accessible for exposure incidents within 15 minutes of the initial exposure and is the sole method of reporting an exposure .
- Exposure counselors communicate essential information during the initial call to include:
  - ▣ Ensure the source patient is notified of the incident & does not leave the department.
  - ▣ Instruct the injured party to begin first aid.



# Exposure Control Plan: SOD Medical Emergency Poster

## Medical Emergency Procedures



### NON LIFE-THREATENING EMERGENCIES

- Use the first aid kit if necessary – First aid kits are available in all clinics and laboratories.
- Contact your personal health care provider OR, if necessary, go to the UW Medical Center Emergency Room (normal fees will apply)
  - Students may contact Hall Health at 822-3211
- Notify supervisor/instructor
- Report the incident within 24 hours- see below for guidelines



### LIFE-THREATENING EMERGENCIES

- Call 9-1-1
- Keep victim still and comfortable
- Administer first aid if trained
- Send someone to meet the ambulance at the loading dock between B & D wings opposite South Campus Center to assist responding emergency personnel
- Report the incident within 24 hours- see below for guidelines

# 9-1-1



### BLOODBORNE PATHOGEN EXPOSURE

- Notify supervisor/instructor
- EYES: Immediately wash eyes at eye wash station for 15 minutes while holding eyelids open
- OTHER: 1. Scrub exposed area thoroughly with soap and warm water for 15 minutes  
2. Remove the contaminated needle or instrument from the work area
- Between 8:00AM and 5:00PM: Notify supervisor/instructor **AND** call the Exposure/Incident Hotline at 206-351-2268
- After 5:00PM: Go directly to the UWMC Emergency Room **AND** notify the Exposure/Incident Hotline at 206-351-2268 by leaving a detailed message
- Report the incident within 24 hours- see below for guidelines

- If injured person is a patient or a visitor, report incident via Patient Event Form Link: [https://medical.washington.edu/patient\\_event\\_form/](https://medical.washington.edu/patient_event_form/)  
(Note: To log-in, enter your main User Name with sod, before it (for example: sod/janesmith) Enter your main SOD password (the same one you use to log onto your computer for work)
- If injured person is student, staff or faculty, report incident via OARS Link: <http://www.ehs.washington.edu/ohspars/index.htm>

### Emergency Contact Information

Emergency: 9-1-1    Non-emergency UW Police: 206-685-UWPD (8873)    Exposure/Incident Hotline: 206-351-2268

# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

- Do not eat, drink, smoke, apply cosmetics or lip balm, or handle contact lenses in any work areas where there is the possibility of exposure to blood or bodily fluids.
- Do not place food or drink in refrigerators or freezers used for dental materials, shelves, cabinets, or on countertops or bench tops in any work areas.



# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

- Guidelines for **cleaning up** spills, sharps & broken glass contaminated with blood and/or bodily fluid:
  - ▣ Wear protective eyewear & mask if splashing is anticipated.
  - ▣ Remove glass & other sharps materials using a broom & dust pan, forceps, hemostat, etc. - **Do not use your hands.**
  - ▣ Properly discard all materials into a sharps or puncture-resistant biohazardous waste container.
  - ▣ Use absorbent towels or paper to soak up the spilled materials.



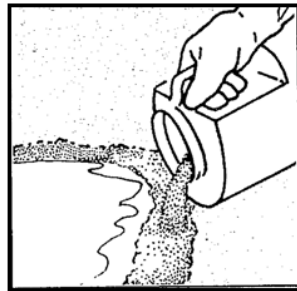
# Exposure Control Plan: Spill Clean Up

## EMERGENCY CLEANUP PROCEDURE FOR A SPILL UP TO 250 ml.



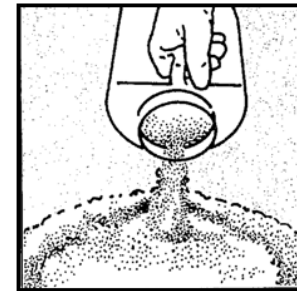
**1** Protect

Don approved PPE



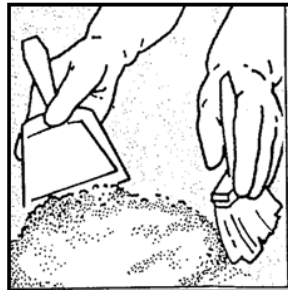
**2** Contain

Circle the spill with formalin absorbent



**3** Neutralize

Fill the entire circle with formalin absorbent



**4** Cleanup

Wait five minutes before cleaning up spill.



**5** Dispose

Place all waste in sealed plastic bag. Contact EH&S for removal

# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

- Continued:
  - ▣ Clean the area with 10% bleach or EPA-registered disinfectant.
  - ▣ Saturate the spill area with disinfectant & leave for 10 minutes (or as specified by product manufacturer) or allow to air dry.
  - ▣ Use antiseptic wipes using the “Wipe, Discard, Wipe” (clean/disinfect) method.
  - ▣ Dispose of paper towels & cleaning materials into proper waste containers in accordance with hazardous materials guidelines.



# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

□ Regulated waste poses a significant risk of exposure to workers, including those who may handle waste downstream.

□ Regulated waste includes:

- Liquid or semi-liquid blood
- Contaminated items that would release liquid or semi-liquid blood if compressed or compacted
- Dried caked blood that might flake off or be released if handled
- Contaminated sharps
- Pathological and biological items with blood

**Regulated waste does not include materials that sufficiently absorb blood such as band aids and feminine hygiene products.**

# Exposure Control Plan: Work Practice Controls (Safe Work Practices)

## Regulated waste container guidelines:

- ❑ Easily accessible
- ❑ Labeled or color-coded
- ❑ Leak-proof & closeable
- ❑ Puncture-resistant for sharps
- ❑ Replaced routinely & not overfilled
- ❑ Lined & disinfected (as applicable)
- ❑ Always wear adequate PPE when handling sharps & waste



# Exposure Control Plan: PPE

- PPE is required whenever exposure to blood or other body fluids cannot be completely eliminated.
- PPE must adequately ensure that blood or other body fluids cannot pass through or reach your clothes, skin, eyes, mouth or other mucous membranes.



# Exposure Control Plan: PPE

- Gloves (not re-used)
- Face shields or masks & eye protection
  - ▣ Eyewear has side shields
  - ▣ Full face shield used for high splatter procedures
- Resuscitation devices
  - ▣ Oxygen mask
  - ▣ Bag valve mask
- Lab coats & gowns
  - ▣ Fluid resistant fabric
  - ▣ Cover to the neck
  - ▣ Long sleeved with cuffs
  - ▣ Worn only in treatment/lab areas
  - ▣ Laundered by office or professional service

# Exposure Control Plan: PPE

- Gloves must be worn when hand contact with blood or other body fluids can be reasonably anticipated or when handling or touching contaminated items or surfaces.
- Recommend making a list of tasks/procedures that always require the use of gloves.
- Non-latex gloves should be available for those who are hyper-sensitive to latex (worker or patient).
- Discuss the types of gloves used in your workplace (e.g., latex, nitrile, vinyl, powderless, utility) & the process for disinfecting & replacing non-disposable gloves.

# Exposure Control Plan: PPE

- ❑ Do not re-use disposable gloves.
- ❑ Change gloves frequently; pinhole leaks can allow passage of microscopic organisms.
- ❑ Remove torn & damaged gloves; wash hands thoroughly with soap & water before replacing them.
- ❑ Wash hands with soap & water between each glove use.



# Exposure Control Plan: PPE

- Remove gloves safely
  - ▣ Grasp near cuff of glove and turn it inside out. Hold in the gloved hand.
  - ▣ Place fingers of bare hand inside cuff of gloved hand & turn inside out & over the first glove.
  - ▣ Dispose gloves into proper waste container.
  - ▣ Clean hands thoroughly with soap & water (or antiseptic hand rub product if hand washing facilities not available).



# Exposure Control Plan: PPE

- ❑ Appropriate face & eye protection must always be worn in clinical settings because splashes, sprays, splatters & droplets of blood as well as other bodily fluids pose a hazard to the eyes, nose & mouth.
- ❑ Face shields are necessary when the risk & amount of potential splash or splatter is substantial.
- ❑ Safety glasses with side shields may be adequate when the risk of splash is minimal.
- ❑ Splash goggles or the combination of a mask & eye protection may be required in higher risk situations.



# Putting on (donning) PPE:

Follow these steps for donning PPE:

- Don your gown.
- Seat your patient in the chair.
- Don your face mask and adjust fit.
- Don your protective eyewear.
- Wash your hands.
- Don your gloves.



# Remove your PPE in proper sequence:

Follow this sequence to remove (doffing) PPE:

- Remove your protective eyewear.
- Remove face mask touching only the mask.
- Avoid touching your face.
- Remove your gloves.
- Wash your hands.
- Remove your gown; avoid contaminating your hands.
- After removing your gown, wash your hands again.



# Comparison of Eye Protection Options

*Safety Glasses With Vented  
Side Shields (Impact Only)*



*Safety Glasses With  
Nonvented Side Shields  
(Impact Only)*



*Visorgogs® (Impact Only)*



*Impact Safety Goggles  
(Impact Only)*



*Chemical Splash Safety  
Goggles (Impact and Splash Protection)*



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# Exposure Control Plan: PPE

- Use the following when administering CPR:
  - Gloves
  - Resuscitation device such as:
    - Mouthpiece
    - Resuscitation bag
    - Pocket mask
    - Microshield
    - Overlay barrier



# Exposure Control Plan: Hepatitis B Vaccine

- ❑ Employers are required to make hepatitis B vaccinations available to all workers with occupational exposure.
- ❑ This vaccination must be offered after the worker has received the required BBP training & within 10 days of initial assignment to a job with occupational exposure.
- ❑ Hepatitis B vaccination information:
  - ❑ 3 injections at 0, 1, & 6 months of employment
  - ❑ Effective for 95% of adults
  - ❑ Post-vaccination testing for high risk health care workers

# Exposure Control Plan: Post-Exposure Evaluation & Follow-Up

- Post-exposure evaluation & follow-up must be made available to any occupationally exposed worker who experiences an exposure incident of:
  - eyes
  - mouth
  - other mucous membranes
  - or non-intact skin contact with blood / OPIM

**Evaluation and follow-up must be cost free to the worker.**

# Exposure Control Plan: Post-Exposure Evaluation & Follow-Up

- Post-exposure evaluation & follow-up includes:
  - ▣ Documentation of the route(s) of exposure & circumstances under which the incident took place.
  - ▣ Identification & testing of the source patient/individual for HBV & HIV infectivity.
  - ▣ Collection & testing of the exposed worker's blood.
  - ▣ Offering post-exposure prophylaxis & counseling.
  - ▣ Evaluation of reported illnesses.

# Exposure Control Plan: Post-Exposure Evaluation & Follow-Up

- After the employee has received post-exposure follow-up, the employer is required to obtain a written opinion from the healthcare provider and provide it to the employee within 15 working days.





# SOD BBP Protocol

- BBP Exposure Protocol
  - STOP work immediately.
  - Eyes: Wash eyes at eyewash station for 15 minutes while holding eyelids open.
  - Skin: Scrub exposed area thoroughly with warm soapy water for *15 minutes*.
  - Notify instructor/supervisor AND call the Exposure Hotline.
  - Exposure Counselor will guide you through the process.
  - Report incident within 24 hours.

# Exposure Control Plan: Labels & Signs to Communicate Hazards

- Warning labels must be affixed to the following:
  - Containers of regulated waste
  - Containers of contaminated reusable sharps
  - Refrigerators and freezers containing blood or other potentially infectious materials
  - Containers used to ship blood or other potentially infectious materials
  - Bags or containers of contaminated laundry

**Red bags or red containers may be used instead of labels.**

# Exposure Control Plan: Labels & Signs to Communicate Hazards

Example of labeled regulated waste



Example of labeled regulated waste



# Exposure Incident Response

- To reduce the chance of contracting a transmittable disease, it is very important to carry out post-exposure initial treatment.
  - Eye or facial exposure
    - Flush exposed eyes (while holding eyelids open) with water for 15 minutes as soon as possible (prior to seeking medical care) using emergency eyewash stations if available.
  - Needle sticks and non-intact skin exposure
    - Scrub area thoroughly with warm water & sudsy soap for 15 minutes. Perform first aid.

**Seek medical care as soon as possible.**

# Summary

- References to develop a successful exposure control plan & required components are listed in the following slides. In addition to the links provided, visit the University of Washington School of Dentistry Health & Safety website for examples of policies, procedures & exposure control plan.

<http://dental.washington.edu/health-and-safety/>

# References

- Bloodborne Pathogen OSHA Fact Sheet
  - [http://www.osha.gov/OshDoc/data\\_BloodborneFacts/bbfact01.pdf](http://www.osha.gov/OshDoc/data_BloodborneFacts/bbfact01.pdf)
- Model Plans for OSHA Bloodborne Pathogen Standard
  - <http://www.osha.gov/Publications/osh3186.pdf>
- CDC Bloodborne Pathogens Topic Page
  - <http://cdc.gov/niosh/topics/bbp/>
- Medical & Dental Offices: A Guide to Compliance with OSHA Standards
  - <http://www.osha.gov/Publications/osh3187.pdf>
- UW School of Dentistry Health & Safety Website
  - <http://dental.washington.edu/health-and-safety/>

# References

- Safety & Health Assessment & Research for Prevention, (SHARP) Program, Washington State Department of Labor & Industries, Olympia, USA
  - <http://www.lni.wa.gov/Safety/Research/Pubs/default.asp>
  
- BMC Public Health, (2006) Percutaneous Injuries among dental professionals in Washington State
  - <http://www.biomedcentral.com/1471-2458/6/269>
  
- Washington State Department of Health
  - <http://www.doh.wa.gov>

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