



Episode 4: Blood and Body Fluids

How or why did the term blood borne pathogen (s) come about?

'Blood borne pathogen' (BBP) is a term that evolved in the mid to late 1980's during the emergence of HIV (Human Immunodeficiency Virus), which causes Acquired Immunodeficiency disease (AIDs). A BBP ruling, created by Occupational Safety and Health Care Administration (OSHA), was passed into law in December of 1991. This was initially applicable for the healthcare environment but the regulation now covers anyone who could be exposed to blood (or other body fluids that may have viruses in it).

Terminology adopted for this blood borne pathogen ruling was initially Universal Precautions or Blood and Body Fluid Precautions. It is now referred to as Standard Precautions in the US and Routine Practices in Canada. Simply, "if you find a fluid that is moist, wet and it doesn't belong to you, be sure you use the appropriate PPE to clean it up!"

What are three pathogens that the blood borne pathogen ruling addresses?

The ruling primarily addresses HIV, Hepatitis B and Hepatitis C. All 3 of these are enveloped viruses which means that they are easy to kill with disinfectants.

It is important to remember that exposure to blood or Other Potentially Infectious Material (OPIM) in the workplace is to be reported immediately to your direct supervisor. OPIM could include bloody urine, feces, blood-tinged sputum, and other fluids which would be encountered more in a healthcare environment (pleural fluid, peritoneal fluid, synovial fluid, etc).

It is not only viruses that may be transmitted, other bacterial and parasitic infectious diseases can be transmitted through exposure to blood or OPIM.

What are the main ways that you can become infected with a blood borne pathogen?

Being exposed to sharp objects (poorly discarded needles, broken glass, knives), or waste that may contain blood or OPIM (dental offices, medical clinics, even household waste), or being in a medical emergency (co-worker vomiting blood, assisting someone who fell and cut themselves), could expose a worker to a blood borne pathogen. All employers are required to make an assessment of duties performed, and educate workers on possible exposure to blood borne pathogens. Outside of work, transmission could occur through unsafe sexual practices or IV drug abuse. Many years ago, receiving a blood transfusion was a significant risk, however, blood products and donors now undergo rigorous screening to make blood as safe as possible for transfusion.



Which governing body regulates the BBP ruling?

As stated, the Occupational Safety and Health Care Administration (OSHA) is the branch of the federal government that regulates the BBP ruling. With the ruling, each employer has to

- assess the risk of exposure by job function
- have a plan for how they protect their employees
- what the process is if an exposure occurs
- assessment of the employee
- initiation of treatment based on the exposure risk.

This is the agency that an employee would contact should they have a concern that their employer was not providing the necessary measures to protect them.

Describe what my employer has to do.

What is the minimal training requirement for BBP for front line cleaners or janitors?

Upon hire, OSHA requires education to be provided to employees re: the BBP ruling. The specific regulation is in Title 29 of the Code of Federal Regulations at 29 CFR 1910.1030 (in the US).

Each employee must receive training on the use of Personal Protective Equipment (PPE). PPE will be very task specific and can include:

- gloves of various strength, based upon the work required (vinyl, nitrile, rubber, etc.)
- goggles and/or a face shield to protect the face, if splashing could happen during the course of performing your job functions
- masks to cover one's nose and mouth (infection with a blood borne pathogen through this route is rare)
- gowns or impervious (waterproof) covering for your clothes.

There is a vaccine for the prevention of acquiring the Hepatitis B virus (HBV). The vaccine is a series 3 shots, to help your body build immunity to the HBV. An employer is obligated by law to offer the vaccine upon hire (within 10 days) if, in your role, there is the potential that you would be exposed to blood and OPIM as a routine part of your position. This doesn't just apply to healthcare workers, but to plumbers, those that work with the sewer systems, police officers, first responders and many others. An employee has the right to decline the vaccination, but you will be required to sign a waiver indicating that the employer offered the vaccine and you chose not to receive it. Even if you declined, you can go back later and tell them that you would like to receive it.

How can an employee protect themselves?

By law, employees need to use the PPE provided to them.

Employees need to be trained in risks associated with their job. For example, if an employee could find an uncapped needle (in an ambulatory care center, or in a park), the employee would be trained on how to pick it up and where to dispose of it.



Employees need to be trained on handling any waste. In healthcare, there are levels of waste: general, biomedical and hazardous chemicals. These will be in different colored bags, and the employee must know how to handle each type of waste, if that is required in their job.

Employees need to report any injury, or exposure to blood or OPIM to their supervisor as soon as possible, for documentation and possible follow up.

The employee needs to be aware of the employer's Exposure Control Plan. The plan needs to be reviewed and updated annually.

If offered, the employee should take the HBV vaccine. It is safe and effective at preventing Hepatitis B. Also, there can be issues if an employee who could have a blood borne pathogen exposure declines the vaccine and then has an exposure. If they go onto develop the disease and need to claim workman's compensation, the amount the employee is entitled to can be further reduced from the 66 and 2/3rds that you would typically receive from Workman's compensation.

The employer must also maintain a sharps injury log. As stated above, your employer also needs to provide education/training related to BBP upon hire. Information included in this education would also include what to do if you had an exposure or needle stick on the job.

[What are the products and procedures BBP on hard surfaces and carpeting?](#)

Each employer must have a plan in place. They will need to have products available that have been registered with the EPA as a hospital disinfectant. The disinfectant will have demonstrated testing/claims against HIV, HBV and HVC. A hospital disinfectant will be required to disinfect hard, non-porous surfaces that have had blood or OPIM on them. Carpeting cannot be disinfected, but can be cleaned and sanitized through procedures found below.

<http://solutionsdesignedforhealthcare.com/bloodborne-pathogens-hiv-hbv-hcv>

http://solutionsdesignedforhealthcare.com/sites/default/files/resources/Bloodborne%20Pathogens_09_2019.docx.pdf