



Board of Instructors - Westbury Fire Dept.

INSTRUCTOR'S TRAINING BULLETIN

Bloodborne Pathogen Training

Under Chiefs Directive 57 – All members of the Westbury Fire Department **MUST** complete **BLOODBORNE PATHOGEN TRAINING – ANNUALLY**. This Chief's directive coincides with **OSHA 29 CFR 1910.1030**, the standard that regulates Bloodborne Pathogens aka BBP.

This standard, 29 CF 1910.1030(c)(iv), requires the department, as with all first responding agencies, have a written **EXPOSURE CONTROL PLAN, (ECP)** - which is monitored and updated annually or when necessary and provide annual training on its Exposure Control Plan.

An Exposure Control Plan (ECP) is required to cover certain components, ensuring all personnel are getting the proper protection from a Bloodborne Pathogen, and include:

- **Precaution & Prevention**
- **Personal Protective Equipment**
- **Scene Management**
- **Cleaning and Disinfection**
- **Infectious Waste Disposal**
- **Immunizations**
- **Exposure Determinations**
- **Post Exposure Evaluation & Follow-up**
- **Record Keeping**
- **Training Requirement**

This **TRAINING BULLETIN**, a summary and reference guide of the Department's Annual Bloodborne Pathogen PowerPoint Training, reviews and explains each of the components of the department's Exposure Control Plan, allowing members to have a better understanding of the department's Bloodborne Pathogen Policy.

I. Precaution & Prevention

Precaution & Prevention all begins with **EDUCATION** and is the reason why we as an organization have **Mandatory Annual Bloodborne Pathogen Training**. Education begins with:

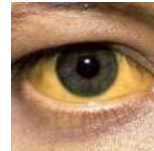
1. Understanding what a Bloodborne Pathogen is:

A bloodborne pathogens are microorganisms such as Viruses or Bacteria that are carried in the blood and other body fluids and cause disease in people.

These pathogens include, but are not limited to:

Hepatitis B Virus (HBV) – Type B Inflammation of the Liver. **There is No Cure.** Although people that have this disease will develop antibodies allowing them to get over the infection, they will always have HBV. *HBV is a very durable disease and can survive in dried blood up to 7 days, which makes it so dangerous.*

Signs & Symptoms of Hepatitis B Virus - Begins much like a mild flu. As disease continues, Jaundice (yellowing of Eyes and Skin) and Darkened Urine. From the date of Exposure, it can take from 1 - 9 months before symptoms become noticeable.



Due to a heightened awareness of HBV exposures, this disease has been on the decline in the US, especially amongst Emergency Responders.

Hepatitis C Virus (HCV) – Type C Inflammation of the Liver. This is the most chronic bloodborne infection in the US. People with this virus are chronically infected, but may not know they have it, because they are not chronically ill. Since they are unaware, it is commonly spread between household members, sexual partners, friends, co-workers...

Signs & Symptoms of Hepatitis C Virus , in the beginning there are none until Liver Cirrhosis (damage) set in, which could take years. It may present as mild fatigue, poor appetite, joint and body aches, nausea and/or mild abdominal discomfort, but eventually the cirrhosis will progress, killing the liver and the infected will need a liver transplant to survive.

Although **HBV** exposures have been on the decline in the US over the years, it's just the opposite for **HCV** which has regularly been on the rise over the last decade.

Note: Hepatitis A Virus (HAV) – Type A Inflammation of the Liver. Although viral like HBV and HCV, HAV invades the body through ingestion of contaminated food or drink, **so it's not classified as a BBP**. Although HAV is not a BBP, it is an infectious disease we need to be cognizant of. For us as first responders, we tend to get exposed by the ingestion of raw sewage, which spatters in the water of an operation we are working. Just think of that routine “water in basement - electrical well check” call, this could be from a sewage back up and unbeknownst walking through it unprotected could ultimately cause us Hepatitis A, if we're not protected properly. First Responders occasionally contract Hepatitis A at natural disasters, especially when there is flooding involved.

Human Immunodeficiency Virus (HIV) – the virus that cause AIDS: **Acquired Immune Deficiency Syndrome**. Once infected with HIV, in time depending on your health, it will become AIDS. **AIDS is Fatal**, it will lead to the collapse of the body's natural immune system, killing you. It is estimated 1 -2.5 million people in the US are infected with HIV. Although treatment over the years has improved, there is still no cure. The good thing about this virus, is it is a very fragile and will not survive long outside the body. This “not so long” may be good for other, but does not include us as first responders, since we will be on the front lines dealing with fresh blood making first responders **very susceptible**.

Signs & Symptoms of HIV varies from patient to patient. Symptoms often include weakness, fever, sore throat, nausea, headache, diarrhea, a white coating on the tongue, weight loss and swollen lymph glands. These symptoms may not appear for month or even years from date of exposure.

2. **How are Bloodborne Pathogens Transmitted:**

We know what a bloodborne Pathogen is, we need to know the modes in which one is transmitted. Bloodborne pathogen such as HBV, HCV and HIV can be transmitted through contact with infected: HUMAN BLOOD, SEMEN, VAGINAL SECRETION and SALIVA.

Bloodborn Pathogen can enter your body with contact through: **OPEN SORES, CUTS, ABRASIONS, ACNE, SUNBURN, BLISTERS, and BROKEN SKIN**. Bloodborne Pathogens can also be transmitted through **MUCOUS MEMBRANE** of your Eyes, Nose and Mouth.

Even with gloves on, touching your eyes, nose or mouth at an incident can be a or serious or deadly mistake.

Members should also be aware there are **Airborne Virus' and Diseases** we may be exposed to like: Tuberculosis (TB), Influenza, Meningitis, Anthrax ... and an exposure to these may be prevented using the same precautions as with a Bloodborne Pathogen.

With Precaution & Prevention, there are **4 Key Items** to be safe:

1. **Awareness** – Know the risk exists and assume everyone has one of these Disease's or Virus'
2. **Personal Protective Equipment** – Know what equipment is available to you, know when and how to use them properly
3. **Safe Practices** – Know what actions are harmful to you and others, including co-workers and your family and friends
4. **Cleanliness** – Know good and safe washing and disinfecting practices

*With all the above, you will have **Good Prevention Practices***

We as first responders are frequently called to scenes where we have occasion to run into: Blood, Vomit and other Bodily fluids, all modes of transportation for a Bloodborne Pathogen, we need to know how to protect ourselves, our co-workers , our family and friends, from contracting a bloodborne disease or virus and this lead us to the second component of our Exposure Control Plan : **Personal Protective Equipment**.

II. Personal Protective Equipment - PPE

PPE is nothing more than equipment we can use and when utilized correctly, doesn't permit blood or other potentially infectious material to pass through and reach the users skin, eyes, mouth and or other mucous membranes under NORMAL CONDITIONS.

Types:

Gloves

Goggles/Glasses/Face shield

Aprons/ Cover Gowns



1. **Gloves**: this is the most commonly used PPE. These gloves need to be made of LATEX, NITRIL, RUBBER or any other WATER IMPERVIOUS MATERIAL. They need to be checked for tears or punctures before being applied. If they are damaged, **DO NOT USE THEM!**



Any member – touching a patient will put glove on first - there are NO EXCEPTIONS!

When removing gloves they should be turned inside out and ALWAYS THE LAST ITEM IN OUR PPE TO BE REMOVED.

2. **Goggles and/or Face Shield**: Anytime there is a risk of splashing or vaporization of potentially contaminated fluids, goggles and face shields should be used to protect the face, eyes and head area.



3. **Aprons/Cover Gowns**: Aprons or cover gowns should be worn when there is a risk of splashing blood, keeping contaminants from soaking into our skin or clothing. Clothing contaminated should be removed as soon as possible because the fluid can seep through the clothing and come in contact with the skin.



At No Time will clothing penetrated by blood/ body fluid be taken home for Laundry !

III. SCENE MANAGEMENT

It is the responsibility of everyone on a scene to alert others (on scene) and other arriving personnel (not on scene yet) of the possibility of such hazards, which include any bodily fluids, so others can take the necessary precautions.



**** What you see as obvious, *may not be so obvious to others.* ****



Only needed personnel should potentially be exposed to possible contaminants, ***if you can't help - you shouldn't be there and risking exposure***. The personnel that were potentially exposed, should do the disinfecting, once patient care is complete, limiting the number of potentially exposed.

IV. CLEANING and DISINFECTION

The most important things ALL MEMBERS can do after ALL ALARMS, (No Matter what type – Fire, Rescue, MVA, Gas Leak...) is to get in the habit of washing your hands, before returning home to you family!

Good hand washing will keep you from transferring contamination from your hands to other parts of your body or to other surfaces that you or someone else may come into contact with later.



Hands should be washed with a non-abrasive soap and running water and always done after removing gloves. There are **Antiseptic Towelettes** and **Hand Sanitizer** in units 9699, 961 and 9611 in a “quick fix”- until hand washing can be achieved.



Cleaning Bodily Fluid Spills – It may be necessary for us as Emergency Care Providers to clean an Offensive bodily fluid spill. Members doing so, should be in Full PPE : Gloves, Eye Protection and Gown. These members should pick up as much as possible and place into a Red Bio-Hazardous Bag (“RED BAG”) . If sharp items are involved, this should never be done by using your hands. Once the spill is clean, the area should be disinfected using a **10% bleach / 90% water solution**. The items used to disinfect should also be placed into the Red Biohazard Bag and the red bag properly disposed of at the hospital of transport.



All Equipment that is **NOT Disposable** and had contact with a patient, will be disinfected with a **10% bleach/90% water solution**, prior to being placed back in service to be reused.



Members doing the disinfecting should be doing so, utilizing necessary PPE.

V. **INFECTIOUS WASTE DISPOSAL**

All infectious waste will be disposed of in either a:

1. **“Sharp” Container** – Puncture resistant, leak proof container used for disposal of contaminated broken glass, needles or lancets.
2. **BioHazard Bags** – Bags used for disposal of “soft” items contaminated with bodily fluids like blood, urine, vomit ...



Both containers should contain the following Logo noting they contain a Bio-Hazard inside.



The Sharp Container and Red BioHazard Bags will be disposed of at a **participating hospital facility** and **NOT with the regular trash.** Be directed to the proper locations in the hospital by the hospital staff.

VI. IMMUNIZATION

The only Bloodborne Pathogens that has a vaccine that's routinely administered to prevent such diseases are Hepatitis A and B. Any member wishing to be vaccinated for Hepatitis B can do so by contacting the Department Physician and receiving the series of 3 shots. These shots are given over a 6 month period and are at no cost to the member.



This vaccination will be offered to all members, not vaccinated, every time the member is required to get an OSHA Medial. Although members can refuse, it is strongly recommended members don't, since there is no danger of contracting the disease from the vaccine. If a member refuses the vaccine and does contract the disease, if the vaccine is started immediately following contact, it is extremely effective as a treatment in preventing the disease.

Hepatitis A vaccination is a series of 2 shots given over 6 months or in combination with a Hepatitis B vaccination. Hepatitis A vaccination is not regularly offered because it is typically preventable by proper cleanliness. Members attending a natural disaster, where they may regularly be confronted with Raw Sewage in flood waters... are encourages to get immunized before attending such incidents.

Recently there has been proven effective treatments for Hepatitis C, which minimizes the damage to the liver and makes the disease almost untraceable. This is a treatment, so not given to prevent the disease. There has also great improvement in again, not the immunization to prevent HIV, but in the treatment, where a cocktail of drugs is administered after a diagnosis, which again, will make the disease virtually untraceable in the effected person's blood.

VII. EXPOSURE: DETERMINATION – EVALUATION – FOLLOW UP

What is an “Exposure” and who is “At Risk”?

An **Exposure** incident is a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral (needle stick) **contact** with blood or other potentially infectious materials, as defined in the standard that results from the performance of a worker’s duties.

These exposures are not only exposures but these members are also “At Risk”

A **simple exposure** is a member who may have gotten patient’s blood on their forearm but have no open cuts/abrasion, meaning all their skin is intact or after taking their gloves off came in contact with an unknown urine soaked linen. These are still **exposures** but these members are **not at risk**, or risk is less severe than ones that are at risk making their immediate need for treatment less urgent.

Note: All Exposures, **at risk or not**, will be handled by the department in the exact the same manner, documentation being imperative and the difference being the course of treatment.

Also Note: with hands - nail beds and cuticles are very susceptible, so although skin may appear to be intact, if fingers are involved side towards **at risk**. The same falls true with sun burn (redness of the skin), the skin may be in tact but still vulnerable, again side towards at risk.

When in doubt, always side towards at risk, better to be safe than sorry.

When a member feels he/she may have been exposed to a Bloodborne Pathogen:


1. Wash / Flush area exposed with soap and water **as soon as possible**. In a quick fix, use antibacterial wipes or disinfecting soap carried in 9699, 961 and 9611 until washing can be conducted.
2. Notify the **Officer In Charge (OIC) of the incident**, and the **Exposure Control Officer - ECO** (Chief of Department) or the Alternate (Rescue Captain) in their absence.

In accordance with the Ryan White AIDS act, regarding the evaluation and disclosure of relevant information for Emergency Response Personnel’s Exposures to either and Airborne or Blood borne disease our department is required to have a designated officer and an alternate to report a possible exposure. These peoples in our department will be known as the Exposure Control Officer(ECO) = (Chief of Department) and Alternate ECO = (Rescue Captain) These members will be the Liaisons between the exposed members and treatment center – Hospital/Department Physician.

Unlike with other Line of duty incidents, due to HIPAA Law, do not make an entry into the Red Department Blotter noting your exposure; the notification to the OIC and ECO or Alternate will be sufficient departmental notification.

3. **A Medical Trained Member: Prepare - Pre-Hospital Care Report (PCR)**
(if refusing transport to a hospital the OIC or ECO shall witness and sign refusal on PCR)

The Exposed Member: **Prepare – Department’s Biological Exposure Report** and return it to Exposure Control Officer (ECO).



1

Department Run Number

BIOLOGICAL EXPOSURE REPORT

(Return to Exposure Control Officer Or Their Alternate in Absence - ONLY)

Member's Name		Social Security #	Age
2		Company	
Address		Date Reported	
Exposure Date	Exposure Time	Apparatus Assignment	

3 DESCRIBE OR CHECK ALL TASK(S) PREFORMED WHEN EXPOSURE OCCURRED

<input type="checkbox"/> CPR/Chest compressions	<input type="checkbox"/> Intubation	<input type="checkbox"/> I.V Insertion	<input type="checkbox"/> Moving Patient
<input type="checkbox"/> Protected Mouth to Mouth	<input type="checkbox"/> Airway Mgmt.	<input type="checkbox"/> I.V. Meds.	<input type="checkbox"/> Disinfecting
<input type="checkbox"/> Unprotected Mouth to Mouth	<input type="checkbox"/> Vital Signs	<input type="checkbox"/> Bleeding Control	<input type="checkbox"/> Other - Describe Below

Describe: _____

4 PERSONAL PROTECTIVE EQUIPMENT WORN: CHECK ALL APPROPRIATE

<input type="checkbox"/> SCBA - Firefighting Mask	<input type="checkbox"/> Surgical Mask	<input type="checkbox"/> Latex Gloves	<input type="checkbox"/> Eye Protection
<input type="checkbox"/> HEPA Filter Mask	<input type="checkbox"/> Pocket Mask	<input type="checkbox"/> Work Gloves	<input type="checkbox"/> Apron/Gown

Did your personal protective Equipment remain secure and intact? YES NO

5 FLUID EXPOSED: CHECK ALL APPROPRIATE ANSWERS

<input type="checkbox"/> Intact Normal Skin/Exposed to blood	<input type="checkbox"/> Intact Normal Skin/Exposed to Non-bloody body Fluid(s)
<input type="checkbox"/> Mucosa exposed to Non- Bloody body fluid	

If NON BLOODY Body Fluid(s) - Which: Vomitus Urine Feces Sputum
 Fluid and Possibly Bodily and/or Blood

<input type="checkbox"/> Blood to Mucosa (Eye)	<input type="checkbox"/> Blood to open cut/Scratches	Area of body Exposed
<input type="checkbox"/> Blood to Mucosa (Mouth/Nose/Other)	<input type="checkbox"/> Blood to Open Sore/Rash/Sun Burn	
<input type="checkbox"/> Needle Puncture	<input type="checkbox"/> I.V. Needle Puncture	

Estimate size of the area of your body that was exposed: _____ inches
(length x width)

For how long was the fluid touching your body before taking action: _____ minutes

6 BITE WOUNDS Human Dog Other Animal Rabies Vaccinated: Yes No Unknown

7 WATER RESCUE Yes No NYS DISASTER: Yes No FEDERAL DISASTER: Yes No

8 UNPROTECTED CPR, INTUBATION, OR PROLONG TREATMENT (WITHOUT PPE)

<input type="checkbox"/> CPR - Known TB Patient	<input type="checkbox"/> Treatment - Known TB Patient	<input type="checkbox"/> CPR - Known Other Airborne Disease
<input type="checkbox"/> CPR - Known Meningitis Pt.	<input type="checkbox"/> Treatment - Known Meningitis Pt.	<input type="checkbox"/> Treatment - Other Airborne Disease

9 VICTIM/PATIENT ASSESSMENT: CHECK APPROPRIATE BOXES

Information obtained by: Patient Relative Friend Hospital notification

Information Rec'd: IV Drug User AIDS Hepatitis TB Chicken Pox Measles Meningitis

Name of Source Individual: _____ Individual Deceased: YES NO

FD PCR #: _____ Source DOB: _____

Address of Patient: _____ Hospital Transported: _____

Address of Call (Response): _____ In Doctors Care - Name: _____

Patient Phone: _____ In Hospice Care - Name Rep: _____

10 EXPOSURE CONTROL OFFICER USE ONLY

District Notified: <input type="checkbox"/> YES <input type="checkbox"/> NO	Comp Case # _____	Member PCR #: _____	By: _____
Member Treated At: _____	Appointment made with Dept. Physician: <input type="checkbox"/> YES <input type="checkbox"/> NO		
Date to see Dept Physician _____	Able to return to duty: <input type="checkbox"/> YES <input type="checkbox"/> NO	Date Returned to Duty: _____	

Assistance Completing a Biological Exposure Form

- 1 Department Run #** - a member can get by asking the dispatcher, computer sheet or displays at Headquarters of Station 2.
- 2 Exposed Members Information** - fill in all fields - Note - SS# is needed for Compensation Case number and remains confidential.
- 3 Tasks Performed:** Check all appropriate boxes that pertain to the tasks being preformed when exposed.
- 4 Personal Protective Equipment:** Indicate what PPE was being used during time of exposure.
- 5 Fluid Exposure:** Check all boxes that apply and indicate the size of the area exposed as well as the length of time exposed before actions taken to correct/clean area exposed.
- 6 Bite Wound:** if exposed due to a bite - complete this section
- 7 Water Rescue:** if exposure was due to water rescue in potential contaminated waters prepare this section
- 8 Unprotected Actions:** If exposure involved unprotected CPR, Intubation or a prolonged treatment with PPE, check the appropriate boxes.
- 9 Victim/Patient Assessment:** Supply as much information possible about the person being exposed from, but this should not delay any treatment (aided or exposed) or the submission of this exposure report to the ECO, gathering such information.
- 10 For Exposure Control Officers Use ONLY:** this area of form is to be completed only by the exposure control officer, assuring all steps required for a members treatment and return to service are attended to.

4. If an **At Risk Exposure** – Seek medical attention at the hospital in which the person exposed from was transported without delay. It is best to seeking Medical attention at the same hospital as the person exposed was transported, this will help with medical records later, saving you and the attending physician unnecessary anguish.

If your exposure is **not at risk**, your treatment is not as urgent so you have a few courses of seeking treatment.

- a. You may also seek treatment at the hospital to which the patient exposed from was transported – as with an at risk exposure
- b. Seek treatment from the Department Physician – **Recommended - if Open**
- c. Seek treatment from your private Physician

*In either of these cases, the attending physician will draw bloods to establish a Baseline, **getting it done within 24 hours is important and should help you pick a course of action.** The attending physician will treat according, which may include giving you medications.*

*If you are doing **option b. or c.** you **MUST** do **step 5** and contact district to obtain a workmen's compensation case # **before seeking treatment.** *If after hours where the district is closed, treatment may be sought and the Comp # obtained immediately upon the district re-opening, treatment should not be delayed – but steps 1-3 **must** be completed prior to seeking outside treatment.**

5. Contact the Fire District – to open a Compensation Case and get a Case #
6. Make an appointment with the Department Physician – **You will not be able to return to duty until you consult with the Department Physician.**
7. Members who received medical attention from the Emergency Room or Department Physician may also seek counsel or a second opinion from their own Personal Physician.

Members who received medical attention at the Emergency Room or Personal Physician can utilize the Department Physician as their second opinion, since they will have to seek a consultation with them before returning to duty.

8. For your protection and the departments, you will need clearance from the Dept Physician before you can return to service.

In all Cases :

Be directed for course of treatment by the attending physician(s).

Give as much information to attending about the person you may have been exposed from, especially name and hospital they were transported at.

Be guided by Dr(s) and Worker Compensation - who will contact you and help guide exposed member through the process. A Nurse from workmen's comp. will be assigned your case and will give you their contact info to call if you have any questions.

9. Later down the road, the exposed member will need follow up Blood test(s) to compare to the Baseline test that was taken within 24 hrs of the date of exposure. This is typically done 6 weeks later and again in 6 months.

VIII. RECORD KEEPING

All Medical Records effecting members with a exposure will be strictly confidential and the record of the exposure will only be between you, the Officer in Charge of the incident and Chief of Department and/or Rescue Captain = (**Exposure Control Officer**) and EMT treating and preparing your PCR, recording the event, this is if it's not the OIC or ECO.

Your results from an exposure to a Bloodborne pathogen, falls under even stricter confidentiality and the department will **only knowing if you are able to return to duty**, under the recommendation of the Department Physician, nothing more.

All Medical records of a Bloodborne exposure will be kept in the Department Physicians office and the only record in a member's personal folder will be the Exposure report and the record of the NYS Compensation Case.

Medical records regarding an Exposure will be maintained for 30 years.

ALL Personnel Training Records for BBP

In accordance of Title 29 CFR Section 1910.20 and 1910.1030 the department must maintain training records which **include the dates of a training, name of the qualified trainer, and names of all members attending the training** session for three years of the date of training.

IX. Training Requirements

The department will provide training to every member, first as a member's probationary training requirement and then annually as mandatory training for all members on the active rolls and responsible to answer alarms. This training will be done under the supervision of the Board of Instructors and by Instructors who have had the Proper Medical Training (*at Minimum, Completed Emergency Medical Technician Training*) .

This Training will cover all components of the department BBP policy, which includes the departments Exposure Control Plan.

SUMMARY

- When in doubt PROTECT YOURSELF !
- WITH PPE – It's never too much !
- There is no turning back the Clock, once exposed there is no going back !
- Everyone is responsible to make Hazards known to all!
- Knowing the Facts + Taking necessary Precautions = Protection Against a BBP

MEMBERS NOTES: