



## INFECTION CONTROL PROGRAM

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## 1. POLICY STATEMENT

1.1 As part of its continuing commitment to the protection of its members' health and in its efforts to comply with the requirements of the U. S. Occupational Safety and Health Administration (OSHA), the Department hereby promulgates this Infection Control Program (ICP). The purpose of the ICP is to provide members with the most up-to-date information pertaining to: bloodborne and airborne pathogens; equipment and methods of personal protection; operational guidelines; and medical issues.

1.1.1 In accordance with 29 CFR 1910.1030(c)(iv), this Exposure Control Plan shall be reviewed and updated at least annually and, whenever necessary, to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

1.1.2 In accordance with 29 CFR 1910.1030(c)(1)(v), employees are encouraged to submit suggestions for reducing exposure to bloodborne pathogens. These suggestions may be submitted through the Employee Suggestion Program link on the Department Intranet or in writing to the Employee Suggestions Program Coordinator, Bureau of Operations, 9 Metrotech Center, Brooklyn, NY 11201.

**NOTE:** *Individuals who are not Fire Department employees, but who may have occasion to ride on Fire Department vehicles in which there exists a potential for exposure to infectious disease, must indicate in writing that they have reviewed and understand the regulations set forth in this procedure. This document must be provided along with the submission of an Observer Request Form in accordance with existing FDNY procedures.*

1.2 Diseases such as Human Immunodeficiency Virus (HIV), Acquired Immunodeficiency Syndrome (AIDS), and Hepatitis B (HBV) are caused by bloodborne pathogens; diseases such as Tuberculosis (TB) are caused by airborne pathogens. All require special precautions, which include identifying activities that increase the risk of exposure and the use of Personal Protective Equipment (PPE) in the prevention of exposure. The precautions and PPE described in this ICP will afford the same degree of protection against other diseases that are caused by bloodborne and airborne pathogens. However, due to the rise in exposure incidents related to emergency response work and the misconceptions regarding how they are contracted, HBV, AIDS, and TB are specifically addressed in this bulletin.

1.3 The fact that a patient is infected or assumed to be infected with a communicable disease shall not justify failure to render any/all appropriate and necessary treatment and/or transportation.

## 2. SCOPE

2.1 The Fire Department recognizes that the following employees may be exposed to blood and other body fluids (biological exposure), as follows:

<b>Job Classification</b>	<b>Tasks and Procedures That Would Involve Occupational Exposure</b>
<i>Firefighters and Fire Officers</i>	The rescue of victims at fires and other emergencies; providing medical assistance to fire and other emergency victims; removal of deceased victims.
<i>Fire Marshals and Supervising Fire Marshals</i>	The arrest and search of crime suspects; the examination of deceased fire victims.
<i>EMS Command Officers, Paramedics and EMTs</i>	Providing pre-hospital emergency care to those who request/require treatment and/or transportation. This includes the cleaning and decontamination of ambulances and equipment.
<i>Equipment Support Staff</i>	Cleaning and decontamination of vehicles and equipment.
<i>Physicians, Nurses</i>	Clinical/medical care and treatment.
<i>Plumbers</i>	The inspection and repair of waste water and sewage appurtenances.
<i>Institutional Aides</i>	Cleaning and decontamination of facilities.

## 3. EXPOSURE CLASSIFICATION

3.1 Biological exposures are divided into two categories: casual exposures and at-risk exposures.

3.1.1 A “casual” exposure is contact but **without** eye, mouth, other mucous membrane, non-intact skin, or parenteral contact (by injection) with blood or other potentially infectious materials.

3.1.2 A “non-casual” at-risk exposure is eye, mouth, other mucous membrane, non-intact skin, or parenteral contact (by injection) **with** blood or other potentially infectious materials.

## 4. EXPOSURE REPORTING

4.1 When a member suspects that they have had a biological exposure (incident) while on duty or during an off-duty fire or emergency that they have responded to within the City of New York, the member shall notify their Company Officer/Station Officer as soon as possible.

- 4.2 Upon receiving notification of the exposure incident, the Company Officer/Station Officer shall:
- 4.2.1 Direct the member to complete the MD-X3 form.
  - 4.2.2 Review the MD-X3 for accuracy and completeness.
  - 4.2.3 Fax the completed MD-X3 and the respective Prehospital Care Report (PCR) to the Medical Officer on emergency duty through the Medical Leave Desk at (718) 999-0035.
  - 4.2.4 If unable to complete transmission of the MD-X3 via fax, call the Bureau of Health Services at (718) 999-1918.
- NOTE:** *Be prepared to supply all information required by the MD-X3.*
- 4.2.5 To contact the Medical Officer on emergency duty directly, call Fire Department Operations Center at (718) 999-7900. This office will notify the Medical Officer on emergency duty (Car 32 or 33).
  - 4.2.6 File the original MD-X3 in the UFS/Station File of the unit where the member was working when exposed and give one copy to the member.
  - 4.2.7 Make an entry in the Company Journal/Logbook, documenting the exposure and the faxing of the MD-X3 and the PCR to BHS.
  - 4.2.8 For “non-casual” at-risk exposures and for meningitis exposures for which prophylactic medication may be indicated, notify BHS immediately at (718) 999-1918 during business hours or Car 32/33 through Fire Department Operations Center during off-hours.
- 4.3 Upon receiving a reply from BHS concerning the MD-X3, the Company Officer/Station Officer shall:
- 4.3.1 Contact the member as soon as possible.
  - 4.3.2 Provide the member with the information from BHS.
- 4.4 A copy of the MD-X3 received by the Bureau of Health Services will be filed in the member's medical record along with a copy of the Bureau of Health Service "Exposure Response Protocol," a history of the member's infection control record, and any treatment or preventive measures ordered by the Medical Officer.

## **5. POST EXPOSURE AND FOLLOW-UP PROCEDURES**

5.1 The Medical Officer shall promptly review the forms to verify the type of exposure that occurred.

5.1.1 If the Medical Officer is further investigating the incident, that Medical Officer shall communicate this fact to the member in person or by telephone before the end of the Medical Officer's tour of duty.

5.1.2 If it is not possible for the Medical Officer to make a determination before the end of his or her tour of duty, that Medical Officer shall transmit all relevant information to the Medical Officer assigned to the next tour of duty, who shall complete the review of exposure. If the Medical Officer assigned to continue the review of the exposure determines that the member has had an at-risk exposure, or that further investigation is required, he or she shall communicate either of these facts to the member by telephone as soon as possible.

5.1.3 Whenever a Medical Officer determines that the member has not been exposed or had a casual exposure to bloodborne or airborne pathogens, that Medical Officer shall assure that a written copy of the Medical Officer's determination is delivered to the Infection Control Unit for forwarding to the member within ten days. The written determination shall be placed in a sealed envelope which is marked "Confidential" and which shall be forwarded to the member's unit.

5.2 Whenever a Medical Officer determines that the member has incurred an at-risk exposure, that Medical Officer shall, as soon as possible after reviewing the MD-X3, contact the member and outline a treatment and follow-up plan in accordance with the Centers for Disease Control (CDC) of the U. S. Department of Health.

5.2.1 Source Individual

A. Identification

1. Provision of identification of the source individual, unless provision of the source individual's identification is not possible or is prohibited by law, will be accomplished by the Department's designated Infection Control Officer.

2. Due to patient confidentiality laws, the condition and disease status of a patient may not be obtainable from the medical facility. Therefore, members shall carefully follow all items outlined in this circular including Post Exposure follow-up procedures. This will insure that the risk to infectious and contagious disease is held to an absolute minimum.

B. Infectious Status

1. Under the Ryan White Act, a request shall be made to the source patient's private physician as to the status of HBV and HIV infection. If consent can not be obtained, the Medical Officer shall base his/her recommendations on the existing evidence. If consent is obtained, or when consent is not required by law, the Medical Officer shall ensure that the source individual's blood is tested as soon as possible for the HIV and HBV infection and the results shall be documented. Where consent cannot be obtained, or is impossible, the Medical Officer shall ensure that this fact is documented. Consent shall consist of a statement signed by the source individual consenting to testing for the HIV and HBV infection or by an authorized party where the source individual lacks capacity to consent.
2. If the source individual is known to be infected with HBV or HIV, the foregoing testing need not be undertaken and the member shall be informed of that status in a confidential manner.
3. If the source individual's blood has been tested, provision of the results shall be made available to the member and the member shall be advised that the test result has been obtained and is protected from further disclosure under NYS Public Health Law Sections 2780 through 2787 (1992). Members shall be advised that they may **not** disclose HIV information related to the source individual subject to Section 2782(3) of the NYS Public Health Law. The Medical Officer shall refer any legal questions concerning the testing of the source individual to the Department's Legal Division.

5.2.2 Collection and testing of member's blood

- A. The member's blood shall be collected as soon as possible and tested by the Bureau of Health Services for HBV and HCV after the member's written consent is obtained. When a member does not consent to HBV testing, the Medical Officer shall document such withholding of consent.
- B. If a member immediately consents to HIV serologic testing, the Medical Officer shall document such consent. BHS shall draw the member's blood and perform the HIV testing.

5.2.3 An offer of the following shall be made available to the member:

- A. Post-exposure prophylaxis, when medically indicated and as recommended by the CDC;

- B. Counseling, including informing the member and their family about medical conditions resulting from exposure to bloodborne pathogens which require further evaluation; and
- C. Treatment and an evaluation of reported illnesses.

### 5.3 Medical Officer's exposure incident evaluation

5.3.1 The Bureau of Health Services shall provide the member with a completed confidential Incident Evaluation Form, which shall include the following information:

- A. Documentation of all components of the medical evaluation.
- B. Whether the HBV vaccination was prescribed for the employee and whether the employee has received such vaccination.

5.3.2 All other findings and diagnoses shall remain confidential and shall not be included in the Incident Evaluation Form.

### 5.4 Information to be provided to Medical Officers

5.4.1 The Chief Medical Officer shall make the following available to all Medical Officers:

- A. A copy of Title 29, Code of Federal Regulations Section 1910.1030 (Bloodborne Pathogens Standard), and BHS protocols for Infection Control, which follow CDC guidelines. (available on the FDNY Intranet)
- B. A copy of the Infection Control Program. (available on the FDNY Intranet)
- C. Access to all medical records that are relevant to the treatment of the member who has been exposed, including the member's vaccination status.

5.5 When the Medical Officer has determined that an at-risk exposure has occurred, BHS shall forward a copy of the Exposure Report to the FDNY OSHA Coordinator.

5.6 A confidential letter of response, detailing the Medical Officer's evaluation and recommendations will be sent to the member at his /her unit. If immediate evaluation or treatment is required, the Medical Officer will contact the member directly.

5.7 All members of the EMS Command who receive an at-risk exposure to airborne, bloodborne, or other potentially infectious materials shall complete a Worker's Compensation package.

## **6. BASIC INFECTION CONCEPTS**

- 6.1 Disease-Producing Organisms: Viruses and bacteria are the organisms commonly responsible for the spread of disease.
- 6.2 An infectious disease results from invasion of a host by a disease-producing organism, such as bacteria, viruses, fungi, or parasites. A communicable (contagious) disease is one that can be transmitted from one person to another.
- 6.3 Not all infectious diseases are communicable. For example, salmonella (food poisoning) is a highly infectious disease; however, salmonella is not contagious. On the other hand, chickenpox is an infectious disease, which is also communicable; it can be easily transmitted from one person to another. Thus, infection control for emergency service operations is primarily, but not solely, concerned with communicable diseases.
- 6.4 Modes of transmission: A communicable disease can be spread directly or indirectly.
  - 6.4.1 Direct transmission occurs through immediate contact with the blood or other body fluid of an infected individual.
  - 6.4.2 Indirect transmission occurs through contact with the blood or other bodily fluid of an infected individual after it has passed from the individual to another person or object.
- 6.5 A communicable disease may be bloodborne or airborne. Bloodborne diseases are spread by contact with the blood or other body fluids of an infected person. Bloodborne diseases of most concern to emergency responders include HIV, HBV, and the Hepatitis C virus (HCV). Airborne diseases, (TB, chicken pox), are spread through the air.
- 6.6 Assessing risk of contracting disease: Any exposure to a communicable disease carries a certain degree of risk. In addition to the type of exposure (casual or “non-casual”), the following four factors are critical in assessing potential risk in any exposure situation:
  - 6.6.1 Communicability: The ability of a disease to transfer from one host to another.
  - 6.6.2 Dosage of the Disease-Producing Organism: Dosage refers to the number of viable (live) organisms received during an exposure. Each illness requires that a certain number of infectious agents be present in order to cause disease (e. g., one Hepatitis B virus in one milliliter of blood may be all that is needed to spread the infection, while 100,000 HIV viral particles may be needed).
  - 6.6.3 Virulence of the Disease-Producing Organism: Virulence is the disease-evoking power of the organism. It is the strength or ability of the organism to infect or overcome bodily defenses. This varies from one situation to another. In most cases, the organism must be one that survives outside the body. For example, HIV (Human Immunodeficiency Virus) dies when exposed to light or air, while the Hepatitis B virus has been shown to live on a surface for days to weeks and still be infectious if it enters the blood stream.

6.6.4 Host Resistance and Health: Host resistance is the ability of the host to fight infection. Infection occurs as a result of an interruption in the body's normal defense mechanism, which allows the organism to enter the body. A healthy person is more resistant to infection.

## **7. BLOODBORNE PATHOGENS AND BODY FLUIDS**

7.1 Bloodborne pathogens cause diseases such as the HBV and HIV.

7.2 Bloodborne pathogens are found in blood, certain body fluids, as well as on materials, objects, or surfaces that have had contact with blood and/or body fluids. CDC considers the following body fluids to be potentially infectious for bloodborne pathogens:

- Semen
- Vaginal secretions
- Cerebrospinal fluid (fluid around the brain and spinal cord)
- Synovial fluid (fluid around joints)
- Pleural fluid (fluid around the lungs)
- Pericardial fluid (fluid around the heart)
- Peritoneal fluid (fluid in the abdomen)
- Amniotic fluid (fluid around an unborn baby)
- Saliva in dental procedures (if mixed with blood)
- Any other fluid, material, object, or surface that is visibly contaminated with these fluids is considered to be potentially infectious. When encountering fluids under circumstances where it is difficult to distinguish between body fluid types, a member shall treat all body fluids as potentially infectious materials.

7.3 The following body fluids are not considered at-risk of transmitting bloodborne diseases unless visibly contaminated with blood; however, they do transmit other diseases and infections and should therefore be avoided.

- Saliva
- Nasal secretions
- Urine
- Sweat
- Feces
- Tears
- Vomit

7.4 All members are encouraged to contact BHS if they have any questions regarding diseases relating to bloodborne pathogens. Medical Officers are available for individual counseling.

## **8. ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)**

8.1 AIDS is a disease that leads to the collapse of the body's natural immune system. Failure of the immune system renders an individual susceptible to other (opportunistic) diseases, such as infections and certain types of cancer.

8.2 The cause of AIDS is a virus known as the Human Immunodeficiency Virus (HIV). Infection by this virus might not immediately lead to AIDS. Some people do not exhibit symptoms after infection with HIV.

8.3 AIDS or AIDS-related illnesses have been reported in all 50 states. It is estimated that between 1.0 to 2.5 million U.S. residents are infected with HIV. Most of them do not have symptoms of the disease. Infected people represent all ages, all races, and all lifestyles. According to the CDC there are currently 944,305 US residents with AIDS. With new drugs available to treat people with AIDS, many now appear asymptomatic, without obvious evidence of infection.

8.4 Persons infected with HIV may experience one or more of the following symptoms: weight loss, diarrhea, bruising easily, skin lesions, shortness of breath, dry cough, night sweats, fever, white film on the mouth/tongue, or swelling of the lymph glands. Symptoms of HIV may not appear for months or even years.

8.5 There are four confirmed methods of transmitting AIDS:

8.5.1 Sexual relations resulting in semen-to-blood or blood-to-blood contact.

8.5.2 Exposure to certain blood components, e.g., transfusions.

8.5.3 Passage of blood through mucous membranes (e.g., the mouth, eyes, nose, and rectum), open wounds of the skin, or sharing of needles. This can include punctures through the skin with a contaminated sharp object or contact with blood or other body fluids with broken or non-intact skin.

8.5.4 From mother to fetus or newborn.

8.6 There is no evidence that HIV can be transmitted through air, water, food, or casual body contact. Although AIDS is an infectious disease, it cannot be spread in the same manner as the common cold or measles.

8.7 There is no evidence of HIV being transmitted by the sharing of drinking glasses, dishes, eating utensils, toilets, drinking fountains, telephones, clothing, money, towels, linens, or toothbrushes.

- 8.8 The evidence indicates that no household member of an AIDS victim has been infected with HIV, except in cases in which there was a sexual contact or where an infant was born to an infected mother.

## **9. HEPATITIS**

- 9.1 Hepatitis is an inflammation of the liver caused by alcohol, toxic chemicals, or viruses. Alcoholic Hepatitis is developed through the heavy drinking of beer, wine, or other alcoholic substances. Toxic Hepatitis occurs most commonly among workers in chemical and heavy industrial plants. Viral Hepatitis is caused through contact with Hepatitis A (HAV), Hepatitis B (HBV), Hepatitis C (HCV), and other types of Hepatitis. Hepatitis D and E have been identified but are still under investigation.
- 9.2 HAV invades the body through the ingestion of contaminated food or drink.
- 9.3 HBV is transmitted in the following ways:
- 9.3.1 Sexual relations resulting in semen-to-blood or blood-to-blood contact.
  - 9.3.2 Exposure to certain blood components, e.g., transfusions.
  - 9.3.3 Passage of blood through mucous membranes (i.e., the mouth, eyes, nose, and rectum), through open wounds of the skin or by the sharing of needles. This can include deep punctures through the skin with a contaminated sharp object or contact with blood or other body fluids with large, open areas of broken or non-intact skin.
  - 9.3.4 From mother to fetus or newborn.
  - 9.3.5 From contaminated surfaces through contact with open cuts or wounds.
- 9.4 HBV has an extended life. It can remain infectious on surfaces for several weeks. However, for HBV to be contagious and produce infection, it must enter the blood stream.
- 9.5 The numbers of NEW infections for HBV in the US declined from 260,000 in the 1980s to 60,000 in the year 2004. This drop is a direct result of the vaccination program that requires HB vaccinations for newborns and school age children and the continued immunization of our health care workers. The National Notifiable Diseases Surveillance System (NNDSS) indicates a 96% decline in hepatitis B viral infections among health care workers over a 17-year period - from nearly 11,000 cases in 1983 to fewer than 400 in 1999. The incidence rate (rate of new infections) of hepatitis B infections generally declined about 60% from 1993 to 1999 among U.S. health care workers. These infections include both symptomatic and asymptomatic cases. (Source: CDC [2002a].)

9.6 Infection with HBV can produce two results:

9.6.1 Self-Limited Acute Hepatitis B. This is the most frequent response to the virus in healthy adults and results in a natural, lifetime immunity to the HBV virus. Approximately one-third of infected individuals have no symptoms, one-third will experience a relatively mild flu-like illness not usually diagnosed as Hepatitis, and one-third will experience the more severe symptoms, such as, jaundice, dark urine, extreme fatigue, loss of appetite, nausea, abdominal pain, and sometimes joint pain, rash and fever. Infected individuals not exhibiting symptoms are capable of transmitting the virus. Persons in the self-limited group eventually clear the virus from their bodies.

9.6.2 Chronic HBV Infection. This is a much more severe condition with individuals becoming chronic HBV carriers. There is a risk of developing chronic persistent Hepatitis, chronic active Hepatitis, as described above, cirrhosis of the liver, and liver cancer.

9.7 HCV is produced by a viral agent. It is spread through blood to blood and sexual contact. It can cause both acute and chronic liver disease. There is no vaccine, but treatment is available for chronic liver disease. According to the CDC the risk factors include IV drugs, cocaine and the use of contaminated needles.

## **10. HBV VACCINATION PROGRAM**

10.1 The Department shall make the HBV vaccination available, at no cost and on Department time, to each member who has risk for occupational exposure, unless:

10.1.1 The member has previously received a complete Hepatitis B vaccination series; or

10.1.2 The vaccine is medically contra-indicated; or

10.1.3 The member previously declined

10.2 When the Department does not administer a HBV vaccination to a member for any of the foregoing reasons or due to the member's refusal, the circumstances shall be documented.

10.3 The Department shall provide the vaccination according to the recommendations of the U.S. Department of Health in effect at the time of the vaccination.

10.4 The Hepatitis B vaccination shall be administered to each member after having received training on the ICP and within 10 working days of member's initial hepatitis vaccine. The Hepatitis B vaccinations are administered to un-immunized members during training. The initial two vaccinations are given during training and the third shot is given during either the 5<sup>th</sup> grade physical or annual examination.

- 10.5 The Department shall make the vaccination available to each member who is potentially exposed to blood or other body fluids and who initially declines the vaccination but desires it at a later date. It is the member's responsibility to notify BHS that he/she has changed his/her decision and now wants to receive the vaccine, on his or her own time.
- 10.6 Each member is requested to acknowledge the offer of inoculation by signing the consent form MD-HBI. Forms will be filed in the member's medical folder at BHS.
- 10.7 The Department shall assure that members who decline the Hepatitis B vaccination sign the following statement:
- "I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at-risk of acquiring the Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with the Hepatitis B vaccine, at no charge to me. However, I decline the 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 materials and I want to be vaccinated with the Hepatitis B vaccine, I can receive the vaccination series at no charge to me."*
- 10.8 When a member refuses to sign the foregoing statement, the statement shall be read to the member. The medical professional shall state in writing that the member has refused to sign the declination statement and shall sign this statement.
- 10.9 The HBV vaccination shall be administered in a series of three intramuscular injections of the synthetically produced brand of Hepatitis B vaccine according to the recommendations of the U. S. Public Health Service. In some cases, other evaluation procedures may necessitate additional visits to BHS in which additional vaccinations will be available on a voluntary and confidential basis.
- 10.10 If a member misses a second or third vaccination, for any reason, that member shall schedule the second or third vaccination with BHS, as soon as possible. Members who have not participated in the vaccination series due to having initially declined the vaccine, medical leave, light duty or full duty detail, shall contact BHS. It is the member's responsibility to contact BHS.
- 10.11 Adverse effects of vaccination.
- 10.11.1 The synthetically produced Hepatitis B vaccine is generally well tolerated. No serious adverse reactions attributable to the vaccine have been reported during the course of clinical trials. As with any vaccine, there is the possibility that broad use could reveal adverse reactions not observed in the clinical trials.
- 10.11.2 The following adverse reactions have been reported:
- A. Local (injection site) - sore arms were the most common complaint.

- B. Systemic (body as a whole) - Some members reported flu like symptoms. Complaints included fatigue/weakness, headache, slight fever and malaise. These symptoms did not last more than one day.

10.11.3 Other adverse reactions are possible and should be reported to the on-site medical personnel who are administering the vaccine, the Officer on duty, or the Department Medical Officer.

10.11.4 Additional information concerning the adverse effects of the vaccination is found in Supplement No. 2, or may be requested from the on-site personnel or from the Bureau of Health Services.

## **11. TUBERCULOSIS**

11.1 Tuberculosis is an airborne disease that is spread through the air when a person with active pulmonary tuberculosis coughs and releases tuberculosis droplets into the air. Other persons in close proximity can then breathe in the droplets that have the tuberculosis bacteria. When unprotected persons breathe air that has been contaminated by an infectious person, they may become infected with the tuberculosis organism.

11.2 Casual exposure does not normally result in transmission of tuberculosis. The tuberculosis organism does not readily cause active disease in the majority of people who come into contact with it.

11.3 Most individuals who encounter the tuberculosis organism do not become infected, while others may become infected but are able to contain the infection. These persons with tuberculosis infection but no active disease are not infectious. They are not sick themselves and cannot make others sick.

11.4 While exposure under proper conditions can cause infection, it does not usually cause active disease. Less than 10% of the people infected with the tuberculosis bacteria actually become ill with the active disease. Only persons with active disease are infectious to others.

11.5 Handling bed sheets, pillows, or patients' clothing cannot transmit the tuberculosis bacteria.

## **12. BODY SUBSTANCE ISOLATION**

12.1 Body Substance Isolation is an approach to infection control whereby all human blood and all human body fluids are considered potentially infectious; therefore precautions must be taken to avoid any contact with blood, body fluids, and all other potentially infectious materials.

- 12.2 The Department shall provide hand-washing facilities that are readily accessible to members. Commanding Officers shall ensure that their units have an adequate amount of liquid soap available.
- 12.3 When the provision of hand washing facilities is not possible, the Department shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth, paper towels, or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, members shall wash their hands with soap and running water as soon as possible.
- 12.4 Members shall wash their hands as soon as possible after the removal of gloves or other personal protective equipment.
- 12.5 Members shall wash their hands and any other exposed skin with soap and water, or flush mucous membranes with water immediately or as soon as possible following contact of such body areas with blood or other potentially infectious materials.
- 12.6 Members shall avoid contact with contaminated sharps (contaminated objects that can penetrate the skin).
- 12.7 Members who have either open lesions or weeping dermatitis, and who have direct patient care responsibilities, shall report to their Company Officer/Supervisor and refrain from patient care activities, until such time that a BHS physician medically evaluates them.
- 12.8 Intact skin is an excellent barrier. Open skin areas can be a concern for bacterial infections. In the community at large there have been increased incidents of Methicillin-resistant Staphylococcus Aureus (MRSA). To avoid infection frequent hand washing is recommended. Cover cuts and wounds to avoid contamination. Universal precautions remain important in patient care.
- 12.9 Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.
- 12.10 Members are not permitted to wear sneakers or sneaker type shoes while on duty.
- 12.11 Members shall exercise care to minimize exposure to splashing, spraying, spattering, or generating droplets of blood or other body fluids.
- 12.12 Members shall take precautions to prevent injuries by needles, scalpels, or other sharp instruments or devices. To prevent needlestick injuries, contaminated needles shall not be recapped, purposely bent or broken, removed from disposable syringes, or otherwise manipulated by hand. All needles, scalpels, and other disposable sharp instruments shall be discarded into a puncture resistant sharps container.

12.13 Sharps containers shall be:

- 12.13.1 Easily accessible and located as close to the area of use as possible.
- 12.13.2 Replaced when 3/4 full.
- 12.13.3 Properly closed, sealed prior to removal, and placed in a double red bag or infectious waste container for disposal.
- 12.13.4 Colored red, with the appropriate biohazard symbol displayed and easily identifiable.

**NOTE:** *Sharps containers which are issued as part of the ALS Drug Bag are for single use only and are to be discarded after each use.*

12.14 Members shall avoid accidental contamination of equipment with blood or other infectious materials. If such contamination occurs, steps must be taken to disinfect/decontaminate the equipment.

12.15 Infectious waste (e.g., contaminated latex gloves, cotton glove liners, eye shield/face mask, or bandages) shall be placed into red Biohazard bags. CFR-D Companies shall give these red bags to FDNY EMS Command personnel at the scene of Department operations. If FDNY EMS Command is not present at the scene of Department operations, the red bagged items shall be returned to quarters and placed in an infectious waste container located in a light traffic area (remote) on the apparatus floor.

12.16 The hazardous waste disposal (Red Bag) disposal policy for CFR-D Companies shall be as follows:

- 12.16.1 CFR-D Companies shall drop off Red Bag waste at their CFR-D Depot.
- 12.16.2 Citywide pickups for red bag waste shall be at CFR-D Depots.
- 12.16.3 CFR-D Depot Officers shall contact Solid Waste Technologies, Inc. at 718-698-7100 to have the Depot's red bags picked up for proper disposal.
- 12.16.4 Receipts for red bag pick up shall be forwarded in an envelope to:

FDNY Facilities Management/ OSHA Unit  
40-34 35<sup>th</sup> Street  
Long Island City, NY 11101

**NOTE:** *No tools, masks, or equipment shall be transported in red bags. **Red bags are for disposable infectious waste items only.** Members of EMS Command refer to Operating Guide Procedure 125-03, Regulated Medical Waste.*

12.17 A facsimile of the Universal Biohazard symbol is found below:



FIGURE 1

12.18 All personnel shall be aware of the possible legal ramifications, to both FDNY and the individual that may arise from the improper handling and disposal of regulated medical waste. These consequences could include fines and/or imprisonment.

### **13. INFECTION CONTROL PERSONAL PROTECTIVE EQUIPMENT**

13.1 Infection control PPE shall be worn by members during those incidents where members could be potentially exposed to blood and other potentially infectious materials. Infection control PPE is *appropriate* if it does not permit blood or other potentially infectious materials to pass through to or reach the member's work 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.

13.1.1 The Department shall make the following infection control Personal Protective Equipment (PPE) available to members: disposable latex gloves, disposable protective gowns, eye shield/face mask or goggles with appropriate mask, pocket mask, antiseptic towelettes, and biohazard bags.

13.1.2 Infection control PPE shall be made available in different sizes.

13.1.3 Company Commanders shall insure that all members are aware of the location of the infection control equipment on the apparatus.

13.1.4 Company Officers, at roll call, shall have members check the location of infection control equipment on the apparatus and the quantity of supplies on hand. A record of this inspection shall be incorporated in the roll call entry. If the location or status of this equipment changes during the tour, the Officer shall make a Company Journal entry to this effect.

13.1.5 Infection control PPE shall be readily available at all EMS Command facilities. In addition, a supply shall be available on all EMS Command ambulances and emergency response units (e.g., Major Emergency Response Vehicles, Command Cars).

- 13.1.6 All infection control PPE shall be removed and disposed of in accordance with the housekeeping cleaning section of this plan as soon as possible following the completion of the assignment. In addition, all infection control PPE shall be removed prior to entering the vehicle cab or driver's compartment.
- 13.1.7 The Department shall be responsible for the cleaning, disinfection, or disposal of contaminated infection control PPE in accordance with the housekeeping and cleaning section of this plan. Home laundering of Department issued infection control PPE is not permitted.
- 13.2 The Department shall ensure each member uses appropriate infection control PPE. A member may temporarily and briefly decline to use such equipment, when under rare and unusual circumstances, it was the member's professional judgment that in the specific instance, its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the member. When the member makes this judgment, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.
- 13.2.1 In these instances, the member shall complete the MD-X3 indicating that the PPE **did not** remain secure and intact. These occurrences shall be referred to the Director of the OSHA Unit for review and follow-up, as necessary.
- 13.3 Department issued N-95 respirators shall be used when personnel are caring for patients with suspected infectious tuberculosis. Respirators may only be worn by members who have been medically cleared, trained and who have passed a fit-test.
- 13.4 Other protective clothing shall be worn over the member's uniform whenever a potential for exposure to significant amounts of blood or other potentially infectious materials may be reasonably anticipated.
- 13.5 Latex Gloves
- 13.5.1 Non-sterile, disposable, single use latex gloves shall be made available to all members and shall be worn when an exposure to blood or other potentially infectious materials could occur. Disposable gloves shall not be washed or decontaminated for re-use.
- 13.5.2 Members believing that they are experiencing an allergy to disposable latex gloves shall notify their Company/Station Commanding Officer, as soon as possible. The Company/Station Commanding Officer shall notify BHS as soon as possible in order to have BHS evaluate the allergy claim. If BHS determines that the member has an allergic reaction to the disposable latex gloves, alternate disposable gloves and/or cotton glove liners shall be obtained from the Medical Supply Unit. Fire Suppression Units shall obtain medical supplies from the Technical Services Division.

- 13.5.3 Disposable latex gloves shall be disposed of in a Biohazard red bag.
- 13.5.4 Disposable latex gloves shall be changed after contact with each patient and in the course of treatment if they become torn or otherwise damaged.
- 13.5.5 Fire duty gloves and EMS work gloves shall be worn over disposable gloves when operating at any assignment that has the potential of compromising the integrity and barrier of the disposable gloves. The fire duty and EMS work gloves may be decontaminated and re-used, if the integrity of the glove is not compromised.
- 13.6 Pocket Masks
- 13.6.1 If a Bag Valve Mask (BVM) is not available, a pocket mask with a one way valve shall be used to administer oral rescue breathing to avoid mouth-to-mouth contact and passage of saliva and respiratory air from victim to rescuer.
- 13.7 Eye Shields/Face Masks are in the Safety Shield kit along with disposable latex gloves. Members shall wear eye shields/face masks whenever splashes, spray, spatter, or droplets of blood or other potentially infectious material may be generated, and nose or mouth contamination may be reasonably anticipated. Protective goggles that fit over eye-glasses (ICN 7513) and N-95 respirators shall be made available to those members who must wear corrective lenses. The protective goggles must be worn in conjunction with the N-95 respirator to afford appropriate protection.
- 13.8 Other Infection Control Equipment
- 13.8.1 CFR-D Companies shall have the following infection control equipment and supplies:
- A. Pocket Mask - 1 per member
  - B. Clear Plastic Bags - 25 per unit
  - C. Bio-Hazard Labels - 25 per unit
  - D. Safety Shield Kits (containing face shield and latex gloves) - 25 per unit
  - E. One-Way Valves for Pocket Masks - 10 per unit
  - F. Labels, Plain with Red Border - 25 per unit
  - G. Disposable Body Bags - As required – (Divisions Only)
  - H. Protective Goggles (for over glasses ) - As required
  - I. Protective Goggles (eye glass style) – 6 per unit
  - J. N-95 Respirator – 25 each

13.8.2 Quantities of the above equipment shall be maintained at the unit levels indicated. Replacement items may be obtained from the CFR-D Depot. CFR-D Depot Officers shall re-order needed items directly from Technical Services using normal procedures.

13.8.3 Suitable goggles and masks for members who wear corrective lenses, and members requiring small or extra large disposable gloves, shall be specially ordered from Technical Services. Company Commanders shall survey their unit and order the equipment (protective goggles, disposable face piece, small or x-large disposable gloves) to meet the needs of the unit. Protective goggles are not disposable and will be issued to the individual member.

### 13.9 Disposable Body Bags

#### 13.9.1 Fire Suppression Operations Units

- A. Disposable body bags shall be available for the transportation of deceased persons. They may be obtained from the Deputy Chief on the scene. If a Deputy Chief is not on the scene, the Incident Commander shall call a Deputy Chief to the scene.
- B. The victim shall be placed in a disposable body bag and as an additional precaution that bag shall be placed inside another disposable bag. The disposable bags have no handles; they must be placed inside a heavy duty, non-disposable body bag for transport. When the body is inside the transport vehicle, the outer bag shall be removed.
- C. If the non-disposable vinyl body bag becomes contaminated, the Incident Commander shall notify Special Operations Command to arrange for decontamination.

#### 13.9.2 EMS Command Units

- A. Disposable body bags will be carried on all EMS Command ambulances, Conditions Cars, LSUs and MERVs.
- B. EMS Command is not taking over the removal of DOAs. The purpose of the body bags is for bloodborne pathogen containment. DOA removals shall be handled in accordance with OGP 106-10.
- C. Each EMS Command ambulance shall be stocked with one disposable body bag. Replacement body bags shall not be supplied by the Medical Supply Unit (MSU). This item will be replaced on a one for one basis by the morgue attendant at the receiving facility only.

- D. Members of the EMS Command shall:
  - 1. Utilize the disposable body bags to contain spillage of body fluids encountered in removing DOAs from public view.
  - 2. Secure a replacement disposable body bag from the morgue attendant when delivering a body to the morgue.
  - 3. In the event that the non-disposable body bag is utilized for transport, retrieve the equipment prior to leaving the morgue. This item is to be cleaned in accordance with existing Bloodborne Pathogen procedures and returned to the unit from which it was received.
- E. Haz-Tac units, LSUs and MERVs in addition to the supply of disposable body bags, shall carry one heavy duty, non-disposable body bag.
- F. When the heavy duty, non-disposable body bag is utilized, place the deceased in a disposable body bag first to minimize contamination.
- G. In the event that the non-disposable bag is given to another unit for transport and that unit was unable to retrieve the equipment, ensure that the item is recovered from the facility that received the deceased and cleaned in accordance with existing Bloodborne Pathogen procedures.

**NOTE:** *At no time shall any unit remain off service awaiting a replacement body bag.*

## **14. HOUSEKEEPING**

### **14.1 Housekeeping and Cleaning Requirements**

- 14.1.1 All emergency response vehicles which have been contaminated by airborne, bloodborne, or other infectious materials shall be cleaned and decontaminated as soon as possible following the contamination.
  - A. Cleaning of work surfaces shall be accomplished with warm water and soap.
  - B. Once surfaces have been cleaned, they shall be disinfected using Potassium Dichlorolsocynurate (bleach) solution.
- 14.1.2 All patient care equipment shall be cleaned and disinfected or disposed of.
- 14.1.3 All infection control PPE shall be cleaned and disinfected or disposed of.
- 14.1.4 All personal work uniforms/accessories that become contaminated with blood or other infectious material must be cleaned and disinfected. Contaminated uniforms/accessories may not be home laundered.

- 14.1.5 Disposable contaminated materials shall be placed in double red bags and placed in an appropriate bio-hazardous infectious waste container.
- 14.1.6 Bio-hazardous waste materials shall be disposed of in accordance with the following Federal and State regulations:
- A. Red bags shall be placed in a clearly marked bio-hazard container during handling, storage, and transport. These containers shall be constructed so as to prevent leakage and shall contain spills.
  - B. All used sharps containers shall be closed, sealed, and placed in a clearly labeled bio-hazard container.
  - C. Bio-hazard containers shall be sealed and stored in a designated area of the facility for pick-up and disposal by the FDNY designated Bio-hazard Waste Removal Contractor. In storing the packaged waste, care must be taken to place it in a designated area away from general traffic flow and accessible only to authorized members. Waste may not be stored for more than 30 days. If an EMS Command facility is co-located with an HHC hospital, bio-hazardous waste shall be disposed of in accordance with the hospital's guidelines.

## **15. DECONTAMINATION PROCEDURES**

- 15.1 All equipment contaminated with blood or other potentially infectious material must be either cleaned and decontaminated, or disposed of properly. Appendix A provides guidelines for determining what action should be taken with specific equipment items.
- 15.2 All non-disposable contaminated equipment shall be cleaned and decontaminated after contact with blood or other potentially infectious materials. The Officer on duty shall ensure that equipment and clothing with minor contamination of blood or other body fluids are spot cleaned as soon as practical by a member trained to perform proper decontamination procedures.
- 15.2.1 Technical Services will distribute packets of bleach and one gallon bleach solution spray bottles. These packets will produce a mixture of one part bleach to ninety-nine parts water. The CDC has determined that this is the appropriate mixture for disinfection. A stronger mixture has no advantage in killing viruses or bacteria. Using too strong a mixture will only deteriorate equipment and shorten its useful lifespan.
- 15.2.2 Each day, the member who is cleaning equipment shall:
- A. Empty the packet of bleach into the container first, then fill with water.
  - B. Use appropriate personal protective equipment when cleaning equipment.

- C. Mixtures remaining after 24 hours shall be disposed in the slop sink.
- 15.2.3 Officers shall ensure that the solution is prepared daily and the old solution discarded.
- 15.3 Minor cleaning (decontamination) of soiled firefighting PPE or work duty uniforms.
- 15.3.1 Firefighting PPE and work duty uniforms that have become spotted or lightly soiled with blood, blood products, or other body fluids shall be decontaminated in quarters.
- 15.3.2 The Company Officer will determine if the minor cleaning (decontamination) procedure outlined can effectively decontaminate the items in question. The Officer shall supervise this procedure. If not effective, the item shall be bagged in double clear bags and labeled for collection.
- 15.3.3 The member must don a pair of disposable gloves and eye shield/face mask prior to decontaminating the equipment.
- 15.3.4 Soiled equipment and/or uniforms shall be decontaminated in the slop sink using the cleaner provided. The decontamination shall NOT be conducted in the kitchen, sleeping, or personal hygiene areas.
- 15.3.5 The bleach solution will be used on items that should not be immersed in water.
- 15.3.6 With the drain plugged, the bleach solution shall be emptied into the slop sink. Using a rag soaked in the solution the member shall rub the affected spots working the solution into the garment.
- 15.3.7 Boots and helmets can be immersed in the slop sink. The solution can be applied to hard to reach areas on boots and helmets by using a cleaning cloth soaked in the bleach solution.
- 15.3.8 After washing, rinse several times and wipe dry, using paper towels.
- 15.3.9 When finished, the sink should be thoroughly cleaned and disinfected and the disposable gloves, eye shield, facemask and cleaning cloths shall be placed in a red biohazard bag for disposal.
- 15.3.10 Under no circumstances shall PPE or work duty clothing that is contaminated with blood, blood products, or other body fluids be taken home or to a commercial laundry facility.

**NOTE:** *Items, which are not colorfast, may become discolored by the disinfectant solution. These items should be bagged in double clear bags. Special Operations Command (SOC) shall be notified for pickup and replacement of contaminated items.*

- 15.4 Minor cleaning of soiled EMS bunker-style PPE or work duty uniforms.
- 15.4.1 Work/duty uniforms that have become spotted or lightly soiled with blood, blood products, or other body fluids shall be decontaminated in the station.
- 15.4.2 The Station Officer will determine if the minor cleaning (decontamination) procedure outlined can effectively decontaminate the items in question. The Officer shall supervise this procedure. If not effective, the item shall be bagged in double clear bags and labeled for collection.
- 15.4.3 The member must don a pair of disposable gloves and eye shield/face mask prior to decontaminating the equipment.
- 15.4.4 Soiled equipment and/or uniforms shall be decontaminated in the slop sink using the cleaner provided. The decontamination shall NOT be conducted in the kitchen, living/ office, or personal hygiene areas.
- 15.4.5 The bleach solution will be used on items that should not be immersed in water.
- 15.4.6 With the drain plugged, the bleach solution shall be emptied into the slop sink. Using a rag soaked in the solution the member shall rub the affected spots working the solution into the garment.
- 15.4.7 Helmets can be immersed in the slop sink. The solution can be applied to hard to reach areas on boots and helmets by using a cleaning cloth soaked in the bleach solution.
- 15.4.8 After washing, rinse several times and wipe dry, using paper towels.
- 15.4.9 When finished, the sink should be thoroughly cleaned and disinfected and the disposable gloves, eye shield, facemask and cleaning cloths shall be placed in a red biohazard bag for disposal.
- 15.4.10 EMS bunker-style PPE shall be cleaned as follows:
- Brush off any dry debris.
  - Gently rinse off other debris with water that does not exceed 105°F (40°C). Do not use heavy scrubbing or spraying with high velocity water jets such as a power washer.
  - Thoroughly rinse the protective garment
  - Where necessary, use a soft bristle brush and a mild detergent to gently scrub the protective garment and rinse off the protective garment again. DO NOT USE chlorine bleach, chlorinated solvents, active ingredient cleaning agents, or solvents.
  - Air dry the protective garment by placing on the PPE rack in the station.

15.4.11 Under no circumstances shall PPE or work duty clothing that is contaminated with blood, blood products, or other body fluids be taken home or to a commercial laundry facility.

**NOTE:** *Items, which are not colorfast, may become discolored by the disinfectant solution. These items should be bagged in double clear bags. Special Operations Command (SOC) shall be notified for pickup and replacement of contaminated items.*

15.5 Protective goggles are not disposable. Goggles shall be cleaned with warm water and soap, then rinsed with water. The face piece used with the protective goggle shall be disposed of.

15.6 The Department uses portable radios/handie-talkies from Motorola and other manufacturers. If a Motorola portable radios/handie-talkie becomes contaminated with blood or other body fluids, it shall be decontaminated in quarters. These portable radios/handie-talkies may be completely immersed in fluid.

15.6.1 Non-Motorola portable radios/handie-talkies shall not be decontaminated in quarters. The portable radios/handie-talkie shall be turned off and placed in a double sealed clear plastic bag with biohazard label attached. Bagged items shall be placed on the apparatus in an appropriate location to preserve the integrity of the bag and transported to quarters. The bagged items shall be placed in a light traffic area (remote and secure) on the apparatus floor. Special Operations Command (SOC) shall be notified to pickup and decontaminate any non-Motorola portable radios/handie-talkies.

15.7 The following procedures shall be followed for the collection, bagging, temporary replacement, transporting, and cleaning of grossly contaminated non-disposable PPE and work duty uniforms.

15.7.1 When a Firefighter's work duty uniforms or firefighting PPE becomes contaminated with large amounts of body fluids or other potentially infectious material:

- A. The Incident Commander or Officer shall notify SOC of the need for temporary replacement equipment.
- B. The Incident Commander shall have all items requiring decontamination bagged in double clear bags.
- C. Body Substance Isolation shall be followed when handling bagged items.

- D. Contaminated non-disposable personal protective equipment or work duty uniforms shall be placed in a double sealed clear plastic bag with a biohazard label attached. Bagged items shall be placed on the apparatus in an appropriate location to preserve the integrity of the bag and be transported to quarters. The bagged items shall be placed in a light traffic area (remote location) on the apparatus floor pending collection by SOC. The bag shall be marked with the member's name, assigned unit and type of contaminant (e.g., blood, vomit).
  - E. If, in the opinion of the Incident Commander, member(s) must remove their PPE and/or work duty uniform at the scene of a fire or emergency, the Incident Commander shall select a suitable location where such member(s) shall change into a coverall. The Incident Commander shall insure that the members' PPE and/or work duty uniforms are bagged for decontamination.
  - F. Distribution of replacement equipment and collection points for bagged items shall be established by the Incident Commander.
- 15.7.2 When an EMS member's work/duty uniform or bunker-style PPE becomes contaminated with large amounts of body fluids or other potentially infectious material, the member shall:
- A. Ensure that their contaminated uniform or PPE items are labeled with an indelible ink pen with the member's name.
  - B. Place contaminated items in a double sealed clear plastic bag with a biohazard label attached to the inner bag. The bag shall be marked with the member's name, assigned station and type of contaminant (e.g., blood, vomit).
  - C. Complete an EMS Command Uniform Cleaning Receipt indicating that uniform articles have been submitted for laundering.
  - D. Deposit uniform articles in a light traffic area (remote location) as directed by the Station Officer.
- 15.7.3 EMS Station Officers shall ensure that contaminated clothing is processed for cleaning as follows:
- A. Ensure that the member completes the Uniform Cleaning Receipt accurately, paying particular attention to ascertain that uniform articles have been labeled as indicated above.
  - B. Contact the Division RCC to obtain for a spare PPE ensemble from the Division cache.

- C. Contact the Special Operations Command (SOC) for collection of the contaminated uniforms. SOC will fax a SOC Equipment Decontamination Report (SOC Decon 3) for the equipment. Uniform items shall be listed in the "Misc/Remarks" column. This form shall be filled out completely and faxed back to SOC. The copy of the form and the Uniform Cleaning Receipt is placed in the outer of two clear bags facing out for Decon personnel to view prior to opening.
- D. Ensure that pick up of contaminated laundry and return of clean laundry are accurately documented in the Station Logbook for inventory control reasons.
- E. When the member's issued PPE is returned from cleaning, ensure the member receives their PPE and notify the Division RCC that the spare PPE ensemble is bagged for return to the Division.

#### 15.8 Contaminated Disposable Articles

15.8.1 All contaminated disposable articles shall be placed into double red biohazard bags.

15.8.2 In those assignments that result in the transport of a patient to a hospital emergency department, EMS Command personnel shall, whenever possible, dispose of soiled linens, dressings, and other disposable potentially infectious materials at the receiving hospital, in a manner consistent with the policy and procedures of that hospital.

#### 15.9 Special Operations Command (SOC) Procedures

15.9.1 Upon notification of an incident where PPE or work duty uniforms are contaminated with large amounts of body fluids, SOC shall request the following information:

- A. Location of the unit(s) and the number of members involved;
- B. What items have been contaminated (e. g., personal protective equipment and/or work duty uniform);

15.9.2 SOC shall report to the collection point and distribute the temporary replacement equipment as required. They shall collect items that require decontamination. SOC shall maintain necessary records.

15.9.3 Decontaminated items shall be returned to units.

15.9.4 Body Substance Isolation shall be followed when handling bagged items.

#### 15.10 SOC Cleaning Procedures

15.10.1 The members cleaning the contaminated items shall wear gloves, eye shield/face mask, and protective disposable coveralls.

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- 15.10.2 Contaminated PPE and work-duty uniforms shall be cleaned as per SOC procedures.
- 15.10.3 A record of the cleaning activity shall be maintained at the laundry facility and at SOC. Copies shall be available for inspection.
- 15.10.4 The disposable PPE that is worn by the cleaning team shall be disposed of in red biohazard bags.
- 15.10.5 SOC shall dispose of all items placed in red biohazard bags.
- 15.10.6 The cleaning team shall shower prior to leaving the laundry facility.
- 15.11 Hard Surface Disinfection
- 15.11.1 Hard surfaces (e.g., tools, vehicles, SCBA tanks) should be cleaned, rinsed, wiped with the bleach solution and then rinsed several times with clean tap water.
- 15.12 Vehicle Cleaning/Disinfecting Guidelines
- 15.12.1 Following the completion of an assignment during which there was contamination by potentially infectious materials, EMS Command members shall notify their respective Borough dispatcher that the unit is being placed off service for infection control procedures.
- 15.12.2 Upon arrival at the Station, the Station Officer shall make a determination whether the contamination is minor or gross.
- 15.12.3 In the event of a minor contamination, members shall:
- A. Don protective clothing, including but not limited to, goggles, gowns, utility gloves, and masks, as appropriate.
  - B. Remove soiled linens, place them in a clear appropriately labeled bag, and either deliver them to be laundered in the designated area in the hospital or dispose of them in an appropriate manner.
  - C. Isolate any re-usable equipment items, which may require sterilization in a clear bag and label appropriately.
  - D. Place any/all soiled dressings, bloody materials, and other contaminated, non-sharps waste in a red bag for disposal.
  - E. Check the vehicle for any needles or other sharps and carefully dispose of such items in a sharps container.
  - F. Clean the contaminated area using soap and warm water, then rinse thoroughly.

- G. Disinfect the contaminated area using the disinfectant solution (properly diluted) provided by the Medical Supply Unit (MSU).

15.12.4 In the event of gross contamination of an ambulance, the Station Officer shall:

- A. Assign another vehicle to the crew, and seal the contaminated vehicle until such time as it can be cleaned and disinfected.
- B. Ensure a complete cleaning/disinfection of the vehicle and equipment is performed.
- C. Following decontamination, the vehicle interior must be allowed to fully air dry prior to the vehicle being placed back into service.

15.12.5 In the event that the cab or seating area of an apparatus becomes contaminated, the member assigned to clean the area shall:

- A. Don protective clothing, including but not limited to, goggles, gloves, and masks, as appropriate.
- B. Clean the contaminated area using soap and warm water, then rinse thoroughly.
- C. Disinfect the contaminated area using the disinfectant solution (properly diluted) provided by Technical Services and allow the apparatus to completely air-dry.

15.12.6 All personnel involved in the cleaning of contaminated vehicles, regardless of the level of contamination, shall be provided with PPE. Upon completion, all PPE shall be placed in the appropriately colored and labeled bag and either cleaned or disposed of, in accordance with this procedure.

15.12.7 All personnel involved in the cleaning of contaminated vehicles, regardless of the level of contamination, shall wash their hands and exposed body surfaces thoroughly with soap and warm water. All materials used for personal hygiene shall be placed in a red bag for disposal.

### 15.13 Storing and Handling of Cleaning Agents

15.13.1 Bleach (potassium dichlorolsocynurate) shall be stored away from heat, sunlight, acids, or reducing agents. Bleach is incompatible with acids, organic materials, or reducing agents. IT SHALL NOT BE MIXED WITH HYDROGEN PEROXIDE, AMMONIA OR ANY OTHER CLEANSING AGENT.

#### 15.14 First Aid for Overexposure to Bleach

15.14.1 Members overexposed to bleach shall be moved to fresh air. In case of contact, immediately flush skin or eyes with running water for at least 15 minutes. The Officer on duty shall notify BHS during normal clinic hours or the Medical Officer on emergency duty at all other times.

#### 15.15 Infection Control Cleaning Supplies

15.15.1 The following supplies have been issued to all field units:

<b>Description</b>	<b>Inventory Control No.</b>
Bleach Packets	7526
One Gallon Containers	7527
Hand Soap*	N/A

\*Liquid antibacterial hand soap (not bar soap) will be provided for areas with sinks (e.g., kitchens, bathrooms). Alcohol-based hand sanitizers have been provided for hand cleaning, when water is not available.

15.15.2 Company Commanders shall maintain a sufficient amount of supplies on hand. Reorders shall be directed to Technical Services using normal procedures.

15.15.3 Company Commanders shall insure that soaps, detergents, and bleaches are used in accordance with this Section.

### 16. ISOLATION TECHNIQUES

16.1 The CDC lists hundreds of illnesses and conditions that require special precautions to prevent the transmission of disease to a patient care provider or to another patient (Infection Control 1983; Vol. 4, No. 4).

16.2 The single most effective method of reducing disease transmission is frequent, adequate hand washing. Furthermore, the Department requires all patient care providers to wear disposable gloves whenever patient contact is made. Use of disposable gloves is mandatory whenever exposure to blood/body fluids or other potentially infectious material is possible.

16.2.1 Blood/Body Secretion Precautions - With the high incidence of viral disease in the patient population (Hepatitis, AIDS, etc.) all blood/bodily secretions must be presumed to be infectious. Therefore, all patient care providers shall wear non-sterile, disposable gloves whenever they may contact blood or other potentially infectious materials.

16.2.2 Respiratory Precautions - The risk of tuberculosis exposure has increased within New York City. Tuberculosis may be spread by close contact with respiratory secretions. All patient care providers, upon completion of training and fit testing, should use a Department issued respirator when treating and transporting a patient with a cough which has lasted more than 48 hours or who is otherwise believed to have tuberculosis. Other issues regarding tuberculosis may be found in Addendum 1.

16.2.3 Secretion Precautions - Diseases such as varicella (chicken pox), rubella (German measles), rubeola (measles) and meningococcal meningitis may be spread by close contact with respiratory secretions and/or skin rashes. Patient care providers shall use disposable gloves and a surgical mask if the patient has a skin rash and a fever.

16.2.4 Total Contamination Precautions - (Disposable gloves, mask, cap, and gown) These precautions should be taken when the patient care provider identifies a patient who is contaminated with blood or other potentially infectious materials, which would otherwise contaminate the patient care provider's uniform.

## **17. TRAINING**

17.1 The Department shall provide training to every member with occupational exposure at the time of the member's initial assignment.

17.2 Annual training at the Bureau of Health Services shall be provided to every member within one year of that member's previous training.

17.3 The training program shall include the following elements:

17.3.1 Access to a copy of Title 29 Code of Federal Regulations Section 1910.1030 and an explanation of its contents;

17.3.2 A general explanation of the epidemiology and symptoms of bloodborne diseases (HIV, HBV; and HCV) and airborne diseases (TB, etc.).

17.3.3 An explanation of the modes of transmitting bloodborne diseases;

17.3.4 An explanation of this ICP and how members can obtain a copy of it;

17.3.5 An explanation of how to recognize activities that may involve exposure to blood and other potentially infectious materials;

17.3.6 An explanation of procedures and equipment that will prevent and reduce exposure to blood and other infectious materials and the limitations of such procedures and equipment;

17.3.7 Information on PPE, including its use, decontamination, disposal, and reason for selection;

- 17.3.8 Information on the Hepatitis B vaccine, including its efficacy, safety, benefits, potential adverse side effects, and that the vaccination will be provided free of charge;
- 17.3.9 Information on the procedures to follow if an exposure incident occurs, including procedures for reporting the incident, the post-exposure medical evaluation, and the Medical Officer's written report.
- 17.3.10 An opportunity for the members to ask questions regarding this ICP.

## **18. RECORD KEEPING**

### **18.1 Medical Records**

- 18.1.1 BHS shall be responsible for the medical records of members.
- 18.1.2 BHS shall maintain an accurate medical record for every member that incurs an occupational exposure, including the name and social security number of the member. In addition, a copy of the member's Hepatitis B vaccination status, (including the dates of all vaccinations), a copy of all examinations and follow-up results, procedures, and records of any incident of exposure shall be included.
- 18.1.3 BHS shall keep medical records confidential and shall not disclose them without the express written consent of the member, unless it is legally compelled to disclose such records.
- 18.1.4 The medical record of each member must be kept in accordance with Title 29 CFR Sections 1910.20 and 1910.1030.
- 18.1.5 The Department shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The log shall contain the type and brand of the device involved in the incident the department or work area where the incident occurred and an explanation of the occurrence.

### **18.2 Training Records**

- 18.2.1 BHS shall maintain training records which include the dates of training sessions, the names and qualifications of the trainer, the names and titles of all members attending the training sessions, and the subject matter of the training sessions.
- 18.2.2 Training records must be provided to members upon request, for examination and duplication, in accordance with Title 29 CFR, Sections 1910.20 and 1910.1030.
- 18.2.3 Training records must be maintained for three years from the date on which the training occurred.

**BY ORDER OF THE FIRE COMMISSIONER AND THE CHIEF OF DEPARTMENT**



**CFR-D MANUAL CHAPTER 3 APPENDIX A**  
**EMS OGP 125-04 APPENDIX A**  
**July 2, 2008**

**EQUIPMENT DISPOSAL/DECONTAMINATION  
GUIDELINES**

EQUIPMENT	DISPOSAL/DECONTAMINATION PROCEDURE
Airway Bag	Clean/disinfect by wiping, bag for decontamination by MEU/Tech Services if colorfastness is not guaranteed (gross).
Airways: nasopharyngeal oropharyngeal	Dispose. Dispose.
Backboards	Clean/disinfect by wiping.
Bedpans (plastic)	Dispose.
BP Cuffs	Bag for decontamination by MEU/Tech Services (gross).
Bulb Syringe (Aspirator)	Dispose.
Carry Case (Defibrillator)	Clean/disinfect by wiping, bag for decontamination by MEU/Tech Services (gross).
Cervical Collars	Dispose.
Cloth Restraints	Dispose.
Cold packs	Dispose.
Combitube	Dispose.
Dressings	Dispose.
Drug Bag	Bag for decontamination by MEU (gross).
Electronic equipment (e.g., Apcor)	Clean/disinfect by wiping.
Emesis basin	Dispose.
Endotracheal tubes stylettes (plastic coated)	Dispose. Dispose.
Folding cot	Clean/disinfect by wiping.
Hot packs	Dispose.
Intravenous poles	Clean/disinfect by wiping.
Kelly Clamps	Bag for sterilization by MEU.
Laryngoscopes blades handle	Bag for sterilization by MEU. Bag for sterilization by MEU.
Magill Forceps	Bag for sterilization by MEU.
MAST	Bag for decontamination by MEU (gross).
Monitor defibrillator - exterior only (includes patient cable and non-disposable lead wires)	Clean/disinfect by wiping.
Needles, Syringes, Catheters	Dispose in sharps container provided by the Department. Do not break, bend, cut, or recap needles prior to disposing.

EQUIPMENT	DISPOSAL/DECONTAMINATION PROCEDURE
Oxygen Delivery Equipment extension tubing face masks nasal cannulae oxygen humidifiers oxygen nebulizers	Dispose. Dispose. Dispose. Dispose. Dispose.
Oxygen Flow Meters	Clean/disinfect by wiping, bag for decontamination by MEU (gross).
Oxygen Regulators	Clean/disinfect by wiping, bag for decontamination by MEU/Tech Services (gross).
Penlights	Clean/disinfect by wiping.
Personal equipment (belts, holsters, shoes, flashlights, etc.)	Clean/disinfect by wiping.
Pillows	Dispose.
Pocket Masks One-way valves	Clean/disinfect by wiping. Dispose.
Respirators (Dept. Issued)	Dispose.
Resuscitators (BVM) bag masks valve	Dispose. Dispose. Dispose.
Safety Pins	Dispose.
Scissors	Clean/disinfect by wiping.
Scoop	Clean/disinfect by wiping.
Short Spinal Immobilization Device	Clean/disinfect by wiping.
Splints metal cloth support straps wood	Clean/disinfect by wiping. Clean/disinfect by wiping. Clean/disinfect by wiping or dispose.
Stethoscope	Clean/disinfect by wiping. (Replace entire unit, if gross)
Straps	Clean/disinfect by wiping.
Stretcher/rolling cot	Clean/disinfect by wiping. If mattress integrity is compromised bag for disposal by MEU.
Suction Unit (portable unit) collection jar exterior pump and motor (internal) Suction Units (onboard suction) collection jar tubing from patient to collection unit tubing from collection unit to power	Dispose. Clean/disinfect by wiping. Bag for MEU/Tech Services. Dispose. Dispose. Clean/disinfect by wiping.

<b>EQUIPMENT</b>	<b>DISPOSAL/DECONTAMINATION PROCEDURE</b>
Tech Bag	Clean/disinfect by wiping. Bag for decontamination by MEU/Tech Services if colorfastness not guaranteed or grossly contaminated.
Tongue Blades	Dispose.
Trauma Bag	Clean/disinfect by wiping.
Urinals (plastic)	Dispose.

**BY ORDER OF THE FIRE COMMISSIONER AND THE CHIEF OF DEPARTMENT**



**CFR-D MANUAL CHAPTER 3 APPENDIX B**  
**EMS OGP 125-04 APPENDIX B**  
**July 2, 2008**

**EMS COMMAND UNIFORM CLEANING RECEIPT**

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To be completed by the member, signed by the Station Officer, and returned to the member.

**NAME:** \_\_\_\_\_

**SHIELD / REFERENCE #:** \_\_\_\_\_

**STATION / FACILITY:** \_\_\_\_\_

**DATE SUBMITTED:** \_\_\_\_\_

Articles submitted (circle). Indicate quantity.

1. **SHIRTS (SHORT SLEEVE)** \_\_\_\_\_
2. **SHIRTS (LONG SLEEVE)** \_\_\_\_\_
3. **PANTS** \_\_\_\_\_
4. **JACKET** \_\_\_\_\_
5. **TIE** \_\_\_\_\_
6. **BUNKER-STYLE PANTS** \_\_\_\_\_
7. **BUNKER-STYLE COAT** \_\_\_\_\_
8. **PPE BOOTS** \_\_\_\_\_
9. **WORK GLOVES** \_\_\_\_\_

**SUBMITTED TO:** \_\_\_\_\_

**NAME (PRINT)**

**SIGNATURE:** \_\_\_\_\_

125.04.01 (07/08)

**BY ORDERS OF THE FIRE COMMISSIONER AND CHIEF OF DEPARTMENT**