

**BY ORDER OF THE COMMANDER  
439TH AIRLIFT WING**

**439TH AIRLIFT WING INSTRUCTION  
48-101**



**25 MAY 2016**

***Aerospace Medicine***

**EXPOSURE CONTROL PLAN FOR  
BLOODBORNE PATHOGENS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive (AFPD) 48-1, *Aerospace Medical Program* and has been developed in conjunction with the 439th Aerospace Medicine Squadron (439 AMDS) Military Flight Surgeon (FS), Aerospace Medicine Council (AMC) and Occupational Health Working Group (OHWG) to eliminate or minimize employee exposure to blood or other potentially infectious materials and is intended to comply with the requirements of Occupational Safety and Health (OSHA) Standards delineated at 29 Code of Federal Regulations (CFR) Section 1910.1030, *Bloodborne Pathogens*. It applies to all personnel assigned or attached to Westover Air Reserve Base (WARB). It is important to note that preventive medicine initiatives and response actions associated with Tuberculosis are covered under the 439 AMDS Tuberculosis Exposure Control Plan which provides WARB guidance. In order to ensure compliance with OSHA Standards at 29 CFR 1910.1030, this publication shall be reviewed and updated annually. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847 to 439 MSG/SGPB, 390 Walker Avenue, Box 58, Westover ARB, MA 01022-1532. This instruction directs the collecting and maintaining of information that is subject to the Privacy Act of 1974 authorized by 10 U.S.C. 55, *Medical and Dental Care*; 10 U.S.C. 8013, *Secretary of the Air Force*; 29 CFR 1960, *Occupational Illness/Injury Reporting Guidelines for Federal Agencies*; and E.O. 9397 (SSN).

## ***SUMMARY OF CHANGES***

This document has been substantially revised and must be completely reviewed. In **paragraph 1.4**, adds engineering and work practice controls shall be used to eliminate or minimize employee exposure. Also adds, where occupational exposure remains after institution of these controls, personal protective equipment shall also be used. In **paragraph 1.4.1**, adds additional information regarding engineering controls. In **paragraph 1.4.2** and **1.4.3** adds new requirements for handwashing and alternative use of handwashing. In **paragraph 1.4.7** adds new requirements for sharp containers. In **paragraph 2.1** and **2.2** adds new requirements for personal protective equipment (PPE). In **paragraph 2.7** adds new requirements for repair and replacement of PPE. In **paragraph 2.8, 2.9, 2.10, and 2.11** adds new requirements for PPE. In **paragraph 4.1**, adds new requirements for the hepatitis B virus immunization to military members, due to the Department of Defense updated immunization guidelines 6205.2, requiring all service members to receive the hepatitis B virus immunizations at no cost at all. In **paragraph 5.6** adds new testing requirements for blood samples.

### **1. Methods of Compliance.**

1.1. The 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. The review and update of such plans shall also reflect changes in technology that eliminate or reduce exposure to blood borne pathogens and annually document consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

1.2. An employer, who is required to establish an Exposure Control Plan, shall solicit input from non-managerial employees responsible for direct patient care. These individuals, who are potentially exposed to injuries from contaminated sharps, are responsible for the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the Exposure Control Plan.

1.3. Standard Precautions. Standard precautions shall be observed to prevent contact with blood or other potentially infectious materials. According to the concept of standard precautions, all human blood and certain human body fluids are treated as if known to be infectious for Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), and other blood borne pathogens. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials. Supervisors of employees working in job classifications who encounter occupational exposure to blood or other potentially infectious materials are responsible for ensuring that employees observe standard precautions at all times.

1.4. Engineering and Work Practice Controls. Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used. Controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

1.4.1. Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

1.4.2. Employers shall provide handwashing facilities which are readily accessible to employees.

1.4.3. When provision of handwashing facilities is not feasible, the employer 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, hands shall be washed with soap and running water as soon as feasible.

1.4.4. Employees must wash their hands and any other exposed skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

1.4.5. Employees must wash their hands and any other exposed skin immediately, or as soon as possible, after removal of gloves or other Personal Protective Equipment (PPE).

1.4.6. Contaminated needles and other sharps shall not be bent, recapped, or removed unless no alternative is feasible or such action is required by a specific medical procedure. Such recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique. Shearing or breaking of contaminated needles is prohibited.

1.4.7. Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

1.4.7.1. Puncture resistant

1.4.7.2. Labeled or color-coded in accordance with regulation

1.4.7.3. Leak-proof on the sides and bottom; and in accordance with the requirements set forth in **paragraph 3.6** for reusable –housekeeping sharps.

1.4.8. 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

1.4.9. Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or bench tops where blood or other potentially infectious materials are present.

1.4.10. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances.

1.4.11. Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

1.4.12. Specimens of blood or other potentially infectious materials shall be placed in a container, which prevents leakage during collection, handling, processing, storage, transport, or shipping.

1.4.13. Equipment that may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and decontaminated,

as necessary. If decontamination is not feasible, a readily observable label must be attached to the equipment stating which portions remain contaminated. The Infection Control Officer within each unit is responsible for informing affected employees, the servicing representative, and/or the manufacturer prior to handling, servicing, or shipping so that appropriate precautions can be taken.

#### 1.5. Sharps Injury Log.

1.5.1. Each unit shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such a manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum:

1.5.1.1. The type and brand of device involved in the incident, the department or work area where the exposure incident occurred, and an explanation of how the incident occurred.

1.5.2. The sharps injury log shall be maintained for the period required by 29 CFR 1904.8, in accordance with recording criteria for needle stick and sharps injuries. In addition, all sharps injuries shall be documented on the OSHA Form 300, *Log of Work Related Injuries and Illnesses*, consistent with 439th Airlift Wing Safety (439 AW/SE) reporting guidelines. Whenever possible, injury/illness investigations should be evaluated by Air Force Health Care professionals and Public/Occupational Health workers utilizing the Air Force Safety Automated System (AFSAS). Where the risk of occupational exposure remains after institution of engineering and work practice controls, appropriate PPE will be used. PPE will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to reach employees work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use. Employers must provide appropriate gloves when exposure to blood or other potentially infectious materials (OPIM) exists. Alternatives shall be readily accessible to those employees who are allergic to latex (gloves for example). PPE is provided at no cost to the employee. Supervisors will be responsible for ensuring that employees wear appropriate PPE. It is recommended that a First Aid Kit be placed in each work area identified in [Table 1](#), Exposure Determination. This kit can be ordered through the base supply system, or you may use the Government Purchase Card (GPC) to purchase a comparable kit from any local medical equipment distributor. The following also applies to PPE.

**Table 1. Exposure Determination.**

NOTE: Exposure determination has been made without regard to the use of PPE. The following are job classifications in which employees have potential exposure to bloodborne pathogens.				
UNIT	WHO	HBV	RATIONALE	Task #
Fire Department (439 MSG/CEF)	Fire Fighters	Offered	Emergency response, confined space rescue	2 & 4-14

Civil Engineering Squadron (439 CES/CEF)	Fire Fighters	Required	Emergency response	2 & 4-14
Aerospace Medicine Squadron (439 AMDS)	All reservists (AFI 41-307 Attachment 12)	Required	Reserve medical	1-13
Aeromedical Staging Squadron (439 ASTS)	All reservists	Required	Reserve medical	1-13
Aeromedical Evacuation Squadron (439 AES)	All reservists	Required	Reserve medical	1-13
Security Forces Squadron (439 SFS)	Security Police Officers All Reservists	Offered (civilians) Required	Emergency response, vehicle searches, uncooperative individual	6, 13
Lodging (439 FSS/SVML)	Housekeeping	Offered	Materials in billeting rooms contaminated with body fluids	13
Fitness Center (439 FSS/SVMR)	Recreation Aids	Offered	Cleanup blood and blood products following injury Lifeguards – CPR, first aid	11, 13 7,8,1 1, 12,13
Airfield Communications Technicians	Maintenance Airfield Maintenance	Offered	CPR/First responder requirements due to work on energized equipment	7,8,1 2
439 CES/EOD	All Reservists	Required	First Responder/CPR in blast or potential blast site	7,8,1 2,15
439 FSS/SVS	All Reservists	Required	Cleanup blood and blood products following injury – CPR, first aid	11, 13 7,8,1 1, 12,13

439 FSS/SVX (Volunteers)	Search and Recovery Team	Offered	Search, identify and pick-up victim's bodies and body parts	15
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## 2. PPE.

2.1. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street 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.

2.2. The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

2.3. PPE must be cleaned, laundered, repaired, and/or replaced as needed to maintain its effectiveness.

2.4. If blood or other potentially infectious material penetrates a garment, this garment must be removed immediately or as soon as feasible.

2.5. All PPE must be removed prior to leaving the work area.

2.6. When PPE is removed, it must be placed in an appropriately designated covered container for storage, washing and decontamination, or disposal.

2.7. Repair and Replacement. The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee

2.8. Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; and when handling or touching contaminated items or surfaces.

2.8.1. Disposable (single use) gloves shall not be washed or decontaminated for re-use.

2.8.2. Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibits other signs of deterioration or when their ability to function as a barrier is compromised.

2.9. Masks, Eye Protection, and Face Shields. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

2.10. Gowns, Aprons, and Other Protective Body Clothing. Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments

shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

2.11. Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated

**Table 2. Tasks with Recommended PPE.**

#	TASK	GLOVES	EYE PROTECTION	MASKS	GOWN
1	Drawing blood	Yes	No	No	No
2	Starting IV	Yes	No	No	No
3	Giving injection	Yes	No	No	No
4	Blood pressure	No	No	No	No
5	Temperature	No	No	No	No
6	Direct patient contact	Yes	No	No	No
7	Bleeding control with minimal bleeding	Yes	No	No	No
8	Bleeding control with spurting blood	Yes	Yes	Yes	Yes
9	Suctioning	Yes	No, unless splashing	No, unless splashing	Yes
10	Childbirth	Yes	Yes	Yes	Yes
11	Disinfecting Contaminated Equipment	Yes	Yes	No	Yes
12	Administering CPR	Yes	No	Mouth to mouth mask with one way valve	No
13	Contact with contaminated equipment	Yes	No	No	No
14	Utilize AED (Automatic External Defibrillator)	Yes	No	No	No

15	Picking up/contact with victim's bodies and body parts	Yes	Yes	No	Yes - overall
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### 3. Housekeeping.

3.1. In keeping with the concept of standard precautions, supervisors will ensure that the worksite is maintained in a clean and sanitary condition.

3.2. Equipment. All contaminated equipment and environmental work surfaces shall be cleaned and decontaminated with an appropriate disinfectant after contact with blood or other potentially infectious materials by shift personnel.

3.3. Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures or as soon as feasible when surfaces are obviously contaminated, after any spill of blood or other potentially infectious material, and at the end of the work shift.

3.4. Protective Coverings. Protective coverings such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment or environmental surfaces shall be removed and replaced as soon as feasible when they become obviously contaminated.

3.5. Trash Cans. All bins, pails, cans, and similar receptacles which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials will be inspected, cleaned, and decontaminated as soon as feasible upon visible contamination.

3.6. Sharps. Contaminated sharps shall be discarded immediately or as soon as feasible in approved containers. Caution: Broken glassware that may be contaminated shall not be picked up directly with the hands. It must be cleaned up using mechanical means such as a brush and dustpan, tongs, or forceps. (Furthermore, any mechanical device, which is contaminated, must be decontaminated following use or as soon as feasible).

3.7. Sharps Containers. Sharps containers will be inspected to ensure they do not become overfilled. Sharps containers must be closeable, puncture resistant, leak proof on sides and bottom, and labeled or color-coded. Additionally, sharps containers will be located as close as feasible to the immediate area where sharps are used.

3.8. Laundry. Contaminated laundry must be bagged or containerized at the location where it was used in an approved bag or container (see labeling requirements). Contaminated laundry must not be sorted or rinsed in the location of use. Through the use of the GPC, contaminated laundry will be given to a laundry cleaning company, with instructions to ensure disinfection. Services may clean their own laundry as follows:

3.8.1. Laundry/towels must be placed in a properly labeled Bio-hazard plastic bag/container.

3.8.2. Contaminated laundry should be washed as soon as possible after the incident, or within 24 hours. When removing laundry from bag or container, disposable gloves shall be worn. Gloves shall be disposed of in general waste receptacle.

3.8.3. Laundry shall be washed using any commercially available detergent and one cup of chlorine bleach per load of laundry.

3.9. Disposal. All contaminated waste, properly bagged and labeled, will be given to the 439 AMDS within 24 hours of being generated. The only organizations that would routinely generate "potentially infectious material" are the 439 AMDS, 439 MSG/CEF, 439 AES, 439 ASTS, 439 MSG/SVML and 439 MSG/SVMR.

#### **4. Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-Up.**

4.1. The Department of Defense recently updated its immunization guidelines, 6205.2, requiring all service members to receive the hepatitis B virus immunizations at no cost at all. The Aeromedical Services Information Management System has been updated to comply with this requirement. The requirement for a hepatitis B vaccination began appearing on service members' individual medical readiness lists on March 28 2014. The reminder of the employees (civilian) identified in Table 1, the Hepatitis B vaccine and vaccination series shall be made available at no cost to all employees identified in Table 1. The remainder of the identified employees, upon exposure, should be evaluated by a medical doctor, within one hour, who will make the decision for treatment and follow-up at no cost to the employee. 439 AMDS will provide the HBV to all reservists, and civilians with occupational exposure as identified in Tables 1 and 2. Identified individuals will receive the vaccine either from the 439 AMDS or from the assigned contract medical facility. At the employee's request, the Hepatitis B titer will be made available to the employee upon completion of the vaccination series.

4.2. The employees identified in **Table 1** are allowed the chance to receive the Hepatitis B vaccination after the employee has received the required training and within 10 working days of initial assignments. Civilian employees who decline the Hepatitis B vaccination will be required to sign a 439AW Form 12, *Informed Consent for Westover ARB Employees Hepatitis B Vaccine*. (All reservists with potential exposure must receive the vaccine.) If a civilian employee initially declines the Hepatitis B vaccine but later decides to accept, 439 AMDS will make the Hepatitis B vaccine available at that time, assuming the employee still has the potential for an occupational exposure.

#### **5. Post-Exposure Evaluation and Follow-Up.**

5.1. Due to the potentially severe consequences resulting from exposure incidents, the circumstances regarding these incidents will be investigated with the utmost priority. It is important to note that exposure to blood borne pathogens may occur in various settings either clinical, emergency response, and/or during routine work operations. It is imperative that potentially affected individuals, supervisors, and/or emergency response personnel notify the 439 AMDS (Military) and 439 MSG/SGPB, Bioenvironmental Engineering/Public Health (Civilians), as soon as possible after the incident to ensure compliance with regulatory guidance. In addition, the 439 AMDS/FS section must also be notified if the exposed individual is a military member to initiate follow-up actions and reporting requirements. As soon as possible after the incident the employee must notify their supervisor, and complete a 439AW Form 5, *Exposure Incident Statement*. If not already done so, the individual must be evaluated in an approved emergency medical center or contract facility. If it is after normal duty hours, the supervisor will notify 439 MSG/SGPB, BE/PHS, the next duty day. If an exposure incident has occurred, 439 AW/SEG will be informed for proper documentation in

the OSHA 300 log. The medical evaluation and follow-up will include the following elements (within 24 hours):

5.2. Evaluation and routes of exposure will be made by a medical physician; as well as the circumstances under which the exposure occurred. This should occur within one hour of exposure. A CA-1 should be completed by civilians as soon as possible after the incident. For exposed reservists, contact the 439 AMDS at (413) 557-3565 or DSN 589-3565 for completion of line of duty paperwork.

5.3. Identification and documentation of the source individual, unless infeasible or prohibited by state or local law. If consent (where required) is obtained, the source individual's blood shall be tested and the results documented. If the source individual is known to be infected with HIV or HBV, this shall be documented without a repeat test.

5.4. Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

5.5. The exposed employee's blood shall be tested as soon as feasible after consent is obtained.

5.6. If the employee consents to baseline blood collection but does not give consent at the time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible. Testing will be repeated at 3 months and 6 months post exposure.

5.7. When medically indicated, post-exposure prophylaxis will be provided, as recommended by the U.S. Public Health Service.

5.8. Counseling will be made available to the employee upon request.

5.9. Evaluation of reported illnesses.

5.9.1. Within 15 days of completion of the evaluation, a copy of the evaluating healthcare professional's written opinion shall be obtained and provided to the employee. This written opinion will be limited to the following information:

5.9.1.1. That the employee has been informed of the results of the evaluation.

5.9.1.2. That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment (other findings or diagnoses shall remain confidential and not be included in the written report).

5.9.2. 439 MSG/SGPB is responsible for providing the following information to the healthcare professional following an exposure incident:

5.9.2.1. A copy of the 439 AW Exposure Control Plan.

5.9.2.2. A description of the exposed employee's duties as they relate to the exposure incident.

5.9.2.3. Documentation of the route(s) of exposure and circumstances under which exposure occurred.

5.9.2.4. All medical records relevant to the appropriate treatment of the employee including vaccination status and source individual's blood testing, if available.

## 6. Labeling.

6.1. Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials, and other containers used to store, transport, or ship blood or other potentially infectious materials. These labels shall include the following legend: "**BIOHAZARD**" (word and symbol).

6.2. These labels shall be fluorescent orange or orange-red or predominantly so, with lettering or symbols in contrasting color. Alternately, red bags or containers may be substituted for labels.

## 7. Training.

7.1. All employees with potential for occupational exposure will be expected to participate in a training session that will be provided at the time of initial assignment to tasks where potential occupational exposure takes place, every year thereafter, and whenever changes such as modifications of tasks or procedures or institution of new tasks or procedures affect the employee's exposure. 439 MSG/SGPB will either provide training to all units or train a trainer, except medical and firefighters, who conduct their own. All training will be coordinated through 439 MSG/SGPB and be documented. All documentation will be maintained by the unit with a copy sent to 439 MSG/SGPB for filing. Training will consist of the following:

7.2. An explanation of the Bloodborne Pathogens: *OSHA Standards (29 CFR 1910.1030)* and a copy of this regulation will be accessible to employees at all times.

7.3. A general explanation of the epidemiology and symptoms of bloodborne diseases.

7.4. An explanation of the modes of transmission of bloodborne pathogens.

7.5. An explanation of the exposure control plan and the means by which employees can obtain a copy of the written plan.

7.6. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.

7.7. An explanation of the use and limitations of methods that will prevent or reduce exposure, to include engineering controls, work practice, and PPE.

7.8. Information on the types, proper use, location, removal, handling, decontamination, and disposal of PPE.

7.9. An explanation of the basis for selection of PPE.

7.10. Information on the Hepatitis B vaccine and a statement that the vaccine will be offered free of charge to those identified.

7.11. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.

7.12. An explanation of the procedures to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.

7.13. Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident.

7.14. An explanation of the signs and labels and/or color coding that is used in the facility.

7.15. An opportunity for interactive questions and answers with the person conducting the training session.

7.16. The organization will keep a record of the training on file and send a copy to 439 MSG/SGPB concerning all training sessions. This documentation will include unit, trainer, trainer's qualifications, trainee, job title, SSN (last four), date of training, and information covered.

## 8. Recordkeeping.

8.1. This instruction requires collecting and maintaining information protected by the *Privacy Act of 1974*. Medical records must be kept for each employee with occupational exposure to bloodborne pathogens. Civilian and reserve medical records will be maintained in accordance with established procedures. These records will be kept in accordance with applicable regulations, including the Privacy Act. For each employee with occupational exposure to blood or other potentially infectious materials, the following information will be kept in their record:

8.2. The name and social security number of the employee.

8.3. A copy of the employee's Hepatitis-B vaccination status maintained in Aeromedical Services Information Management Systems (ASIMS) (Occupational Health database and also in the individuals medical record).

8.4. A copy of all results of examinations, medical testing, and follow-up procedures following an exposure incident (to be maintained in medical record).

8.5. The employer's copy of the healthcare professional's written opinion regarding post-exposure evaluation and follow-up (to be maintained in medical record).

8.6. Hepatitis B declination statement of civilian workers will be filed in medical records and tracked in the ASIMS database. **Note:** The above records will be kept confidential and not be disclosed or reported without the employee's expressed written consent to any person within or outside the workplace except as required by the bloodborne pathogens standard or by law. Additionally, these records will be maintained for at least the duration of employment plus thirty years, in accordance with 29 CFR 1910.1020.

JAY D. JENSEN, Colonel, USAF  
Commander

## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

*References*

AFPD 48-1, *Aerospace Medicine Program*, 3 October 2005

29 (CFR) 1910.1030 *OSHA Standards, Bloodborne Pathogens*

29 CFR 1904.8, *Recording Criteria for Needlestick and Sharps Injuries*

29 CFR 1910.1020, *Access to Employee Exposure and Medical Records*, 1 July 2010

AFMAN 33-363, *Management of Records*, 1 March 2008

AFI 33-332, *Privacy Act Program*, 29 January 2004

*Prescribed Forms*

439AW Form 5, *Exposure Incident Statement*, 1 September 2000

439AW Form 12, *Informed Consent for Westover ARB Employees Hepatitis B Vaccine*, 12 August 2003

*Adopted Forms*

OSHA Form 300, *Log of Work Related Injuries and Illnesses*

Massachusetts Department of Public Health (DPH) Unprotected Exposure Form (UEF) AF Form 847, *Recommendation for Change of Publication*, 22 September 2009

CA-1, *Federal Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation*, Rev. Apr 1999

*Abbreviations and Acronyms*

**ASIMS**—Aerospace Information Management System

**CDC**—Center for Disease Control and Prevention

**CPR**—Cardiopulmonary Resuscitation

**EPA**—Environmental Protection Agency

**HBV**—Hepatitis —B Virus

**HCV**—Hepatitis —C Virus

**HIV**—Human Immunodeficiency Virus

*Terms*

**Blood**—Human blood, human blood components, and products made from human blood.

**Bloodborne Pathogens (BBP)**—Pathogenic microorganisms that are present in human blood and can cause disease in humans. These include, but are not limited to, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

**Contaminated**—The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

**Engineering Controls**—Controls (e.g., sharps disposal containers, self-sheathing needles) that isolate or remove the BBP hazard from the workplace.

**Exposure Incident**—A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.

**Occupational Exposure**—Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

**Personal Protective Equipment (PPE)**—Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard is not considered to be personal protective equipment.

**Sharps**—A nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids.

**Titer**—A measure of concentration. Titer testing employs serial dilution to obtain approximate quantitative information from an analytical procedure that inherently only evaluates as positive or negative.

## Attachment 2

### METHODS OF DECONTAMINATION TO BE USED

#### **A2.1. STERILIZATION:** Allows for no microbial life to exist.

A2.1.1. Destroys: All forms of microbial life including high numbers of bacterial spores.

A2.1.2. Methods: Steam under pressure (autoclave), dry heat or immersion in EPA-approved chemical sterilant for prolonged period of time; e.g., 10 hours or according to manufacturers' instructions. NOTE: Liquid chemical sterilants should be used only on those instruments that are impossible to sterilize or disinfect with heat.

A2.1.3. Use: For those instruments or devices that penetrate skin or contact normally sterile areas of the body; e.g., scalpels, needles, etc. Disposable invasive equipment eliminates the need to process these types.

#### **A2.2. INTERMEDIATE LEVEL DISINFECTION:**

A2.2.1. Destroys: Mycobacterium tuberculosis, vegetative bacteria, most viruses, and most fungi, but does not kill bacterial spores.

A2.2.2. Methods: EPA-registered hospital disinfectant chemical germicides that have a label claim for tuberculocidal activity; commercially available hard surface. Germicides or solutions containing at least 500 ppm (parts per million) free available chlorine (a 1:100 dilution of common household bleach - approximately 1/4 cup bleach per gallon of tap water).

A2.2.3. Use: For those surfaces that come into contact only with intact skin, e.g., stethoscopes, blood pressure cuffs, splints, etc. Clean visible material from surface before applying disinfectant.

#### **A2.3. LOWER LEVEL DISINFECTION:**

A2.3.1. Destroys: Most bacteria, some viruses, some fungi, but not Mycobacterium tuberculosis or bacterial spores.

A2.3.2. Methods: EPA-registered hospital disinfectants (no label claim for tuberculocidal activity).

A2.3.3. Use: These agents are excellent cleaners and can be used for routine housekeeping or removal of soiling in the absence of visible blood contamination.

#### **A2.4. ENVIRONMENTAL DISINFECTION:**

A2.4.1. Environmental surfaces which have become soiled should be cleaned and disinfected using any cleaner or disinfectant agent which is intended for environmental use. Such surfaces include floors, woodwork, ambulance seats, counter tops.

A2.4.2. Important: To assure the effectiveness of any sterilization or disinfection process, equipment and instruments must first be thoroughly cleaned of all visible debris.

A2.4.3. Minimizing Risk during CPR Training.

A2.4.4. CPR Instructors shall follow the manufacturer's recommendations and provisions for cleaning and disinfecting the mannequin.

A2.4.5. CPR Instructors and/or students shall not actively participate in hands-on training with the mannequins if:

A2.4.5.1. They have open lesions on their hands in their mouth or on/around their lips.

A2.4.5.2. They are known to be seropositive for hepatitis B surface antigens.

A2.4.5.3. They have upper respiratory infections; if they have had a positive HIV test.

A2.4.5.4. The student or instructor believes he or she has been exposed to or is in the active stage of any infectious process.

A2.4.6. Students shall be told in advance that the training sessions will involve close physical contact with their fellow students.

A2.4.7. If more than one CPR mannequin is available; students shall be assigned in pairs, so each pair has contact with only one mannequin. This approach would lessen the possible contamination of several mannequins by one individual and limit possible exposure to other class members.

A2.4.8. All persons responsible for CPR training (see Table A2.1) shall be thoroughly familiar with hygiene concepts (e.g. thorough hand washing prior to mannequin contact and not eating during class to avoid contaminating mannequins with food particles) as well as the procedures for cleaning and maintaining mannequins and accessories (e.g., face shields). Mannequins shall be inspected routinely for signs of physical deterioration, such as cracks or tears in plastic surfaces, which makes thorough cleaning difficult, if not impossible. Mannequin clothes and hair shall be washed when visibly soiled.

A2.4.9. During the two-rescuer CPR training and practical, there is no opportunity to disinfect the mannequin when the students switch positions. To limit potential for disease transmission, the student taking over ventilation shall simulate instead of blowing into the mannequin. This recommendation is consistent with current training recommendations of the American Red Cross and the American Heart Association.

A2.4.10. Training for the obstructed airway procedure involves the student using their finger to sweep foreign matter out of the mannequins' mouth. This action could contaminate the student's finger with exhaled moisture and saliva from a previous student's exhalation or contaminate the mannequin with material from the student's finger. When performing this procedure, the finger sweep should either be simulated or performed on a mannequin whose airway has been decontaminated before the procedure and will be decontaminated after the procedure.

A2.4.11. Personnel decontaminating the mannequins shall wear gloves and wash their hands after finishing. At the end of each class, the following procedures shall be done as soon as possible to avoid fluids drying:

A2.4.11.1. Disassemble the mannequin as directed by manufacturer.

A2.4.11.2. Thoroughly wash all external and internal surfaces and reusable protective face shields with warm soapy water and brushes.

A2.4.11.3. Rinse all surfaces with fresh water.

A2.4.11.4. Saturate all surfaces with a sodium hypochlorite solution (one-quarter cup of liquid household bleach per gallon of tap water) for 10 minutes. This solution must be made fresh at the start of each class and discarded at the end of class.

A2.4.11.5. after 10 minutes, rinse with fresh water and dry all external and internal surfaces using a 4-inch x 4-inch gauze pad and alcohol to displace water and promote quicker drying. Quick drying minimizes the growth of bacterial or fungal pathogens.

A2.4.12. Each time a different student uses the mannequin in a training class, the individual protective face shield, if used, should be changed. Between students or after the instructor demonstrates a procedure, such as cleaning an obstructed airway, the face and inside of the mouth of the mannequin should be wiped vigorously with clean, absorbent material (e.g., 4-inch x 4-inch gauze pad), wet with either the hypochlorite solution described above, or with 70 percent alcohol (isopropanol or ethanol). The surfaces should remain wet for at least 30 seconds before they are wiped dry with a second piece of clean, absorbent material. NOTE: Although highly bactericidal, alcohol is not considered to be a broad-spectrum disinfection agent, so the use of alcohol here is recommended primarily as an aid in mechanical cleaning and drying.

A2.4.13. People responsible for the use and maintenance of CPR mannequins shall not rely totally on the mere presence of a disinfectant to protect them and their students from cross-contamination during training programs. Emphasis shall be placed on the necessity of thorough physical cleaning (scrubbing, wiping) as the first step in an effective decontamination protocol. Microbial contamination is easily removed from smooth, nonporous surfaces by using disposable cleaning cloths moistened with a detergent solution. There is no evidence that a soaking procedure alone with a liquid is as effective as the same procedure accompanied by vigorous scrubbing.

A2.4.14. Policy for minimizing risk of transmission of infectious diseases during actual CPR: No transmission of HBV during mouth-to-mouth transmission has been documented. However, because of the theoretical risk of salivary transmission of HIV during mouth-to-mouth resuscitation, special attention should be given to the use of disposable airway equipment or resuscitation bags and the wearing of gloves when in contact with blood or other body fluids. Resuscitation equipment and devices known or suspected to be contaminated with blood or other body fluids should be used once and disposed of or be thoroughly cleaned and disinfected after each use. Clear plastic facemasks with one-way valves are available for use during mouth-to-mouth resuscitation. These masks provide diversion of the victim's exhaled gas away from the rescuer and may be used by these health-care providers and public safety personnel properly trained in their use during two-person rescue, in place of mouth-to-mouth resuscitation. The need for and effectiveness of this adjunct in preventing transmission of an infectious disease during mouth-to-mouth resuscitation are unknown. If this type of device is to be used as reassurance to the rescuer that a potential risk might be minimized, the rescuer must be adequately trained in its use, especially with respect to making an adequate seal on the face and maintaining a patent airway.

A2.4.15. Such a device requires two hands to secure a proper face seal and to maintain an open airway. As an additional precaution, the rescuer may elect to wear latex or vinyl gloves

because saliva or blood on the victim's mouth or face may be transferred to the rescuer's hands.

**Table A2.1. Required CPR Training.**

NOTE: The following job classifications require training in CPR, however they are not required to perform CPR in their job, therefore they are not required to fall under the requirements of this instruction. The CEF will respond to all emergencies for these units when on Westover ARB. Awareness level training is provided during CPR initial and refresher training.	
UNIT	WHO
439 CES	Reserve electricians ALL CES members require CPR certification per AFI 10-210
439 AMXS/Electroenvironmental, Guidance Control and Communications & Navigation specialists	All Full-time and Reserve personnel, except Admin
439 MXS/Fuel Systems (Cell), Aerospace Ground Equipment (AGE), Electro-environmental, Guidance Control, Communications & Navigation personnel and Fuel Systems (Cell) Augmentees	All Full-time and Reserve, except Admin
439 Communications Squadron/ATCALs	All Full-time and Reserve personnel, except Admin
439 ALCF com techs,	AGE spec

**Attachment 3****OCCUPATIONAL EXPOSURE TO BLOODBORNE PATHOGENS POST-EXPOSURE EVALUATION AND FOLLOW-UP**

**A3.1.** The following is an exposure incident resulting in a percutaneous injury from contaminated sharps or other potential bloodborne pathogen exposure as described in **Table 1**. It is important to note that exposure to bloodborne pathogens may occur in various settings either clinical, emergency response, and/or during routine work operations. It is imperative that potentially affected individuals, supervisors, and/or emergency response personnel notify the 439 MSG/SGPB (Bioenvironmental Engineering/Public Health) to ensure compliance with regulatory guidance. In addition, the 439 AMDS/FS section must also be notified if the exposed individual is a military member to initiate follow-up actions and reporting requirements. In the event of occupational exposure to bloodborne pathogens, these procedures should be followed:

**A3.2.** If not already done so by emergency response personnel, immediately cleanse wound and notify supervisor and/or your unit Infection Control Officer (Medical Reservists), who will notify 439 MSG/SGPB at extension 2918, and 439 the AMDS (military personnel) on the day of incident. If after hours, report the incident the following morning.

**A3.3.** With supervisor, complete 439AW Form 5, *Exposure Incident Statement*, including source individual's name.

**A3.4.** Obtain consent from source individual for testing for HIV, HBV and HCV (consent form attached). If source is already known to be positive, no further testing is indicated. Report to the 439 MSG/SGPB/439 AMDS as applicable with completed paperwork.

**A3.5.** Depending on the incident, the appropriate POC, Emergency Response personnel, supervisor, 439 AMDS representative, and/or 439 MSG/SGPB personnel will direct individual to proceed to an approved medical facility for evaluation and documentation of the incident by a medical doctor. The medical evaluation and follow-up should be completed within 24 hours.

**A3.6.** If consent is obtained, the source individual's blood shall be tested ASAP. Results of the source individual's testing shall be made available to you.

**A3.7.** The exposed individual's blood shall also be tested as soon as feasible after consent is obtained. If you do not wish to be tested for HIV, HBV and HCV, the sample will be preserved for 90 days following the incident, in the event you change your mind. Testing will be repeated at 3 months and 6 months post exposure.

**A3.8.** When medically indicated, post-exposure prophylaxis will be provided as recommended by the US Public Health Service. Counseling will be made available to you upon request.

**A3.9.** Within 15 days of completion, a copy of the evaluating healthcare provider's written opinion will be provided to you and will include documentation that you have been notified, information regarding any medical conditions which may result from the exposure which could require further evaluation or treatment.

**A3.10.** 439 MSG/SGPB, in conjunction with the 439 AMDS (for military personnel), will provide the healthcare professional following the exposure incident with a copy of the 439 AW Exposure Control Plan and a copy of the 439 AW Form 5, *Exposure Incident Statement*, and other pertinent medical record information, including vaccination status.

**A3.11.** Contact the 439 AMDS at (413) 557-3565 or DSN 589-3565 for completion of line of duty paperwork.

Attachment 4

SAMPLE UNPROTECTED EXPOSURE FORM

Figure A4.1. SAMPLE UNPROTECTED EXPOSURE FORM (SIDE 1 OF 2).



**MASSACHUSETTS  
DEPARTMENT OF PUBLIC HEALTH**  
(DO NOT SEND THE ORIGINAL FORM OR A COPY TO THE DEPARTMENT OF PUBLIC HEALTH)  
**UNPROTECTED EXPOSURE FORM**

*(Please print or type)*

Today's Date / /	Incident Date / /	Receiving Facility <b>BAYSTATE/NOBLE/MERCY/HOLYOKE</b>
Transporting Ambulance Service <b>PATHWAY/AMR</b>		Ambulance Trip Report # <b>ASSIGNED BY AMBULANCE SERVICE</b>
Address <b>TRANSPORTING AMB SERVICE ADDRESS</b>		Designated Infection Control Officer (DICO) <b>EMPLOYING AGENCY DICO</b>
Telephone # for DICO		It is recommended the prehospital emergency care agencies <i>type or print</i> in the name <i>and telephone number</i> of the current DICO before <i>blank</i> forms are provided to their personnel.
<b>EMPLOYING AGENCY DICO TELEPHONE #</b>		

Patient Information	Rescuer Information
Name <b>PATIENT NAME</b>	Name <b>INDIVIDUAL PROVIDING AID</b>
Incident Location <b>WHERE DID THIS HAPPEN?</b>	Address <b>RESCUER ADDRESS</b>
Incident Type <input type="checkbox"/> Medical <input type="checkbox"/> Trauma	City/State/Zip <b>RESCUER ADDRESS</b>
Transportation <input type="checkbox"/> Emergency <input type="checkbox"/> Routine	Day Phone <b>RESCUER PHONE #</b>
Check box(es) which best indicate your exposure. <i>Explain in detail in the spaces provided below.</i>	Evening Phone <b>RESCUER PHONE #</b>
	Profession <b>RESCUERS PROFESSION</b>
Exposure Route: <input type="checkbox"/> Needlestick <input type="checkbox"/> Open cut <input type="checkbox"/> Bite <input type="checkbox"/> Puncture <input type="checkbox"/> Mouth <input type="checkbox"/> Eye <input type="checkbox"/> Other:	Department/ <i>Employer</i> <b>RESCUERS EMPLOYER</b>
Exposure Type: <input type="checkbox"/> Blood <input type="checkbox"/> Sputum <input type="checkbox"/> Saliva <input type="checkbox"/> Other:	
Precautions: <input type="checkbox"/> Mask <input type="checkbox"/> Eye Wear <input type="checkbox"/> Gown <input type="checkbox"/> Exam gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Other: _____ (latex, nitrile, vinyl)    (work type)	
Cleaning: <input type="checkbox"/> Hand Washing <input type="checkbox"/> Washing Contaminated Skin <input type="checkbox"/> Other:	

Describe the nature of the unprotected exposure *in detail*: (attach additional pages if needed)

**EXPLAIN HOW THE EXPOSURE OCCURRED.** Example: While performing CPR I was exposed to individuals body fluid while doing mouth to mouth

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Describe the steps taken by the rescuer to minimize the exposure:

**WHAT DID YOU DO AFTER THE EXPOSURE TO PROTECT YOUR SELF.** Example: Washed exposed area with soap and water, used mouth wash.

**You must provide the information on this form to the facility that received the patient from whom you received the exposure.** I understand that in the case of certain exposures (e.g. needlestick with a bloody needle) it is crucial for the exposed rescuer to seek immediate medical evaluation for treatment that might reduce the risk of infection. Completion of the Unprotected Exposure Form may be done during or after the medical evaluation.

I further understand that I will be informed of an unprotected exposure, only if the patient is diagnosed as having a bloodborne infectious disease dangerous to the public health, as defined in 105 CMR 172.001 and if, in the view of medical personnel, my documented exposure is capable of transmitting that disease.

Rescuer's Signature:           **INDIVIDUAL PROVIDING AID**           Date:           **DATE COMPLETED**          

Form Received By:           **WHO WAS FORM RECEIVED BY**           Date:           **DATE RECEIVED**          

**DO NOT SEND THE ORIGINAL FORM OR A COPY TO THE DEPARTMENT OF PUBLIC HEALTH**    Rev. 05/26/2004  
(Side 1 of 2)    (Instructions and Information on Reverse)  
***(COPY BOTH SIDES!)***

Figure A4.2. SAMPLE UNPROTECTED EXPOSURE FORM (Side 2 of 2).

Massachusetts Department of Public Health  
Unprotected Exposure Form

An Unprotected Exposure Form should be completed for any prehospital emergency care worker (e.g. an EMT, firefighter, police officer, or corrections officer) who believes he/she may have had an unprotected exposure to a patient's blood or *other contaminated* body fluid(s) in the course of attending, assisting or transporting a person to a health care facility as part of his/her professional duties. It is the responsibility of each care provider to complete and file a form with the receiving facility.

If you believe you may have had an unprotected exposure, *you should seek immediate medical evaluation for possible prophylactic immunization and/or treatment, as indicated. You must provide the information on this form to the facility that received the patient from whom you received the exposure.* Ambulance *personnel* or other emergency care providers having an unprotected exposure must complete a form on arrival and leave it at the health care facility with the patient. Other individuals shall file their own forms with the receiving facility within 24 hours of the unprotected exposure.

The health care facility will review the information, which you provide and will determine if you have sustained an unprotected exposure as defined in DPH regulations. If the patient to whom you were exposed is diagnosed as having a bloodborne infectious disease dangerous to the public health, and if you sustained an unprotected exposure which, in the opinion of the health care facility, is capable of transmitting such a disease, the facility shall provide oral notification within forty-eight (48) hours of the diagnosis and written notification within seventy-two (72) hours of the diagnosis. This notice shall be given to the designated infection control officer for your agency who *must* be listed on the unprotected exposure form. Upon notification, the designated infection control officer shall notify you. The notice shall include the appropriate precautions and actions which you should take, the identity of the disease to which you were exposed, necessary precautions to prevent the transmission of the disease to others, and instructions to contact a physician for medical follow-up. **NOTE: The health care facility's determination that you have had an unprotected exposure does NOT necessarily indicate that you have contracted an infectious disease.** The report from the health care facility to the designated infection control officer to you is confidential and is governed by M.G. L. c.111, §111C and DPH regulations 105 CMR 170.000, 171.000 and 172.000.

*N.B. – Due to the time it may take to diagnose a patient with an infectious disease, or the possibility that a patient may never be diagnosed, and the time it may take to notify you of the exposure, the Department recommends that anyone who believes they have suffered an unprotected exposure, such as a needlestick with a bloody needle, should see a physician immediately. Certain prophylactic regimens should be started within hours of an unprotected exposure.*

**INSTRUCTIONS:**

PLEASE PRINT CLEARLY

- Complete all information on the form.
- Check all boxes that apply:
  - the exposure route to you of a patient's blood or bodily fluid(s).
  - the type of the patient's bodily fluid(s) to which you were exposed.
  - body substance isolation* precautions you used (even if they were breached).
  - post incident cleaning you performed.
  - if you checked any "Other" box(es), explain in the space(s) *provided*.
- In the blank narrative sections explain fully the exposure and any treatment you have obtained. Use additional blank sheets, if necessary, and staple *them* to the form. The more accurately you explain the circumstances, the easier it will be for the facility personnel to evaluate your exposure.
- EMT's must also leave a copy of the ambulance trip record at the receiving facility.
- Each EMT and other prehospital emergency medical health care *providers who have* sustained an unprotected exposure must file his/her own form. The form(s) shall be submitted to the receiving health care facility upon patient arrival or within 24 hours.
- Transportation or treatment of the patient(s) must not be delayed in order to complete the form(s).
- *Make a copy for your own records and/or for your designated infection control officer, in accordance with your employer's policies and procedures.*

**DO NOT SEND THE ORIGINAL FORM OR A COPY TO THE DEPARTMENT OF PUBLIC HEALTH**