GUIDELINES FOR EXPOSURE TO BLOOD AND/OR BODY SECRETIONS

BACKGROUND

The New York State Department of Health receives many requests for guidance in the area of infection control from emergency medical service (EMS) personnel who may be exposed to contaminated or potentially contaminated blood or body secretions.

For many years the medical community has been aware of problems caused by human immunodeficiency virus (HIV) and has more recently identified the hepatitis C (HVC) virus as a potential problem.

This policy statement, developed with the assistance of the Department’s Wadsworth Center for Laboratories and Research, updates the information published in previous versions of this policy.

UNIVERSAL PRECAUTIONS

These guidelines are intended to prevent or minimize exposure to the transmission of bloodborne infectious diseases, particularly HIV and viral hepatitis, to employees whose duties put them at risk. All emergency medical services organizations should ensure full implementation of universal precautions and body substance isolation techniques, and require immunization of all employees who are identified as being at risk.

According to the U.S. Department of Labor, Occupational Safety and Health Administration, “universal precautions” refers to the method of infection control in which all human blood and certain human blood fluids are treated as if known to be infectious for bloodborne pathogens. Universal precautions are to be observed in all situations where there is a potential for contact with blood or other potentially infectious material. In emergency situations, differentiating between body fluid types is difficult or

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1 Body substance isolation – an infection control concept and practice that assumes that all body fluids are potentially infectious. Emergency Care and Transportation of the Sick and Injured. AAOS 7th Edition 1998

2 For these purposes, employee means volunteer and paid individuals who act on behalf of the EMS service.
impossible, and all body fluids are to be considered potentially infectious. Universal precautions and BSI techniques must be applied correctly and consistently, to provide a very low incidence of worker exposure to HIV and various hepatitis viruses.

**BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN**

EMS services are encouraged to review, with their medical director, the service exposure control plan and the federal Bloodborne Pathogen Regulations, 29CFR Part 1910.1030, to ensure that all appropriate and required actions are taken with regard to EMS personnel education and training, personal protective equipment, the use of new safer equipment, particularly for sharps, pre-exposure vaccination and post-exposure follow-up.

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SAMPLE OPERATING PROCEDURE
The Department recommends these sample operating procedures be included in EMS service exposure control plans.

What to Report
EMS personnel should immediately report to their supervisor all percutaneous, nonintact skin or mucous membrane contact with blood or body secretions; and supervisors should refer exposed employees for immediate medical attention.

Initial Response

- Thoroughly cleanse area of exposure. (See below for cleansing instructions.)
- Seek immediate attention and exposure evaluation.
- Review the exposed employee’s immunization history.
- Refer the exposed employee for appropriate medical evaluation, care and any necessary post exposure follow up treatment.
- Have the exposed employee’s supervisor complete necessary documentation and required reports. (See below for administrative responsibilities).

Testing

- Have service designated officer (DO) seek any existing information on the source.
- Inform the patient of applicable laws and regulations concerning disclosing the identity and infectious status of the source individual.
- Have the source individual’s blood tested for HIV and the various forms of hepatitis as soon as consent has been obtained.
- Test the exposed employee for HIV and the various forms of hepatitis.

Notification and Counseling

Share test results with the exposed employee, who should also be counseled about his or her health status and, if necessary, treatment options.
Wound Cleansing

- For a puncture cleanse with betadine immediately and follow up by soaking the site for five minutes in a solution of betadine and sterile water.
- For skin contact, first wash the area with soap and water. Then, clean it with betadine.
- For mucous membranes: if in mouth, rinse out mouth with large quantity of tap water; if eyes, flush with water from eyewash. If eyewash is not available, use tap water.

Administrative Responsibilities

Once the area of contact has been cleansed, and the exposed employee referred for further medical treatment, the supervisor should do all paperwork needed to document the incident. He or she should:

- Direct the member/employee to the appropriate location for evaluation and immediate medical treatment.
- Prepare an incident report and note the incident on the prehospital care report for the call in which the exposure took place.
- Advise the employee to initiate a Workers’ Compensation claim.
- Verify that appropriate employee health records have been updated.
- Follow-up on the employee’s medical care, and confirm that appropriate medical care has been given.

Testing Guidelines

Supervisors should arrange to have the source individual’s blood tested for HIV and various forms of hepatitis as soon as possible after consent has been obtained. If the source individual is unable or unwilling to give consent, the EMS organization should consider seeking the legal authority to act without his or her consent. If it is impossible to draw blood from the source individual, but some other sample of his or her blood is available, this should be used. (If the source individual is already known to be infected with one or more bloodborne pathogens, the test for that pathogen may be omitted.)

Supervisors should ask the exposed employee for his or her permission to begin baseline blood tests for HIV and various forms of hepatitis. This should be done as soon as possible after exposure. Follow-up testing for HIV should take place at six weeks, 12 weeks, 26 weeks and 52 weeks after exposure.
### Treatment Possibilities

HIV prophylaxis may include the administration of antiretroviral treatment. Highly active retroviral therapy (HAART) should be initiated as soon as possible, preferably within one hour following exposure, particularly if the EMS provider is HIV negative and the source is HIV positive or at risk.

The risk of transmission of hepatitis B (HBV) or hepatitis C (HCV) is significantly greater than the risk of transmission of HIV. Chronic HBV infection can be prevented in the nonimmune employee by administration of prophylactic hepatitis B immune globulin (HBIG) and the hepatitis B vaccine series. There is no known effective prophylaxis for HCV. The exposed employee should be referred for medical management to a specialist knowledgeable in this area. Obtained baseline HCV serology should be repeated in four to six months.

In cases of possible HBV infection, use the attached treatment protocol, developed and recommended by the Wadsworth Center.

Because the treatment of pregnant woman can present special medical problems, medical personnel treating women who may be pregnant should implement appropriate additional safeguards.