

Davidson County Emergency Services Infection Control Policy

Purpose

To reduce the risk of transmission of infectious diseases to EMS personnel, patients, and the community by establishing standard infection prevention practices.

Scope

This policy applies to all EMS personnel, including EMTs, paramedics, supervisors, students, and support staff involved in patient care or equipment handling.

Standard Precautions

Personnel should assume that all blood and bodily fluids could potentially be infectious

Job Categories

NC-OSHA classifies all work-related tasks into one of the following categories of potential exposures.

Category I: Normal work routine tasks that involve exposure to blood, body fluids, or tissue. This includes tasks that involve potential for mucous membrane or skin contact with blood, body fluids, or tissues.

Category II. Normal work routine involves no exposure to blood, body fluids, or tissue but the employee may be required to perform unplanned Category I tasks or may be potentially exposed in some other way as a condition of employment.

Category III. Normal work routine involves no exposure to blood, body fluids, or tissues. Personnel in this category are not called upon as part of their employment to participate in medical care or to be potentially exposed in any other way.

All EMS personnel with a primary job Responsibility of emergency or non-emergency patient care, rescue, or other emergency responses that routinely place the employee at risk for exposure are classified as category I. This designation will include all EMS operations personnel at the shift Supervisor level and below. Laundry services personnel may also have a reasonable anticipated risk of exposure to blood or other potentially infectious materials at the category I level. When these services are contracted, the contracting employer will be made aware of the potential risk.

Emergency Services Personnel assigned to administrative training, and fire marshal, may have responsibilities that may include the potential for dispatch to emergency or non-emergency scenes classified as category II. This designation will include the following personnel:

- Emergency Services Director
- EMS Operations Manager
- Emergency Management Coordinator

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- Fire Marshal
- Assistant/Deputy Fire Marshal
- Emergency Management Personnel
- System Continuing Education Coordinator

Emergency Services Personnel assigned to Administration duties only are classified as category III. This designation will include:

- Administration Assistant Personnel

Engineering Controls

It is recognized that the most effective method to eliminate the risk of exposure is to isolate and or remove the hazard whenever possible. Listed below are examples of engineering controls utilized in our service:

- Hand washing alcohol substitutes until hand washing facilities are available for all personnel.
- Sharps containers, which are: Rigid, puncture resistant Leak-proof on sides and bottom color-coded or labeled with a biohazard-warning label.
- Devices with retractable sharps for finger stick puncture
- Utilize needleless IV systems when possible
- Utilize needleless syringes when administering medications when possible
- Utilize safety enhance IV catheters
- Disposable Laryngoscope Blades for intubation
- Disposable Bag Valve masks for ventilation
- Disposable Suction Equipment
- Disposable Head Immobilizers

Other engineering controls, new or improved, will be evaluated, at minimum, on an annual basis. The Designated Infection Control Officer and the Supervisors monitor existing engineering controls for proper function.

- Post Exposure Procedures

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POST-OCCUPATIONAL EXPOSURE EVALUATION AND FOLLOW-UP

Exposure Incident is defined as: an incident that may place an employee risk for HIV infection and therefore requires consideration of Post-Exposed Prophylaxis is defined as a percutaneous injury (e.g., a needlestick or cut with a sharp object), contact of mucous membrane or non-intact skin (e.g., when the exposed skin is chapped, abraded, or afflicted with dermatitis), or contact with intact skin when the duration of contact is prolonged (i.e., several minutes or more) or involves an extensive area, with blood, tissue, or other body fluids.

The following process must be initiated immediately after any occupational exposure.

Wash exposed skin and area free of any blood or OPIM and cleanse with mild soap and warm water. Do not scrub the affected area too vigorously; it may damage the skin and increase the likelihood of infection. If soap and warm water are not available, then use the waterless cleanser carried on each unit until soap and water is available. Irrigate mucous membranes and exposures to the eyes with water or saline for at least ten minutes if possible.

Seek medical care if needed for immediate treatment of injury. (I.e. sutures for a laceration, etc.)

Note: All employee blood testing and post-exposure follow-up will be conducted at the direction of the Designated Infection Control Officer and not in the emergency department.

Report all exposures immediately to the on-duty supervisor. If the supervisor is not available then contact the Designated Infection Control Officer, Major Mark Robbins.

Complete the Davidson County Emergency Services Exposure Incident Report. This report needs to be filled out and completed as soon as feasible. The Infection Control Officer needs this report to initiate post-exposure testing of the source patient and employee testing. No testing will be initiated until this report is completed. Relevant information includes:

Date and time of exposure.

Details of the procedures being performed, including where and how the exposure occurred, and if the exposure was related to a sharp device, the type of device and how and when in the course of handling the device the exposure occurred.

Details of the exposure, including the type and amount of fluid or material and the severity of the exposure (e.g., for a percutaneous exposure, depth of injury and whether fluid was injected; or for a skin or mucous-membrane exposure, the estimated volume of material and duration of contact and the condition of the skin {e.g., chapped, abraded, or intact});

Details about the exposure source (i.e., whether the source material contained HIV or other bloodborne pathogens), and if the source is an HIV-infected person, the stage of disease, history of antiretroviral therapy, and viral load, if known; and

Details about counseling, post-exposure management, and follow-up.

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The exposure will be evaluated for potential to transmit HIV based on the type of body substance involved and the route and severity of the exposure. Exposures to blood, fluids containing visible blood, or other potentially infectious fluids (including semen, vaginal secretions, cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids) or tissue through a percutaneous injury (i.e., needlestick or other penetrating sharps-related event) or through contact with a mucous membrane are situations that pose a risk for bloodborne transmission and require further evaluation. In addition, any direct contact (i.e., personal protective equipment either was not used or was ineffective in protecting skin or mucous membranes).

If the source patient is known, the physician of that patient will be notified, as soon as possible, that an exposure has occurred.

If the attending physician of the patient knows the HIV/HBV/HCV/Syphilis status of the source patient, the physician will notify the Designated Infection Control Officer of the HIV/HBV/HCV/Syphilis status of the source patient and testing will be done as appropriate. Information available in the medical record at the time of exposure (e.g., laboratory test results, admitting diagnosis, or past medical history) or from the source person may suggest or rule out possible HIV infection. Examples of information to consider when evaluating an exposure source for possible HIV include laboratory information, clinical symptoms, and history of possible HIV exposures.

If the status of the source patient is not known, the physician of the source patient will, as soon as feasible, and after appropriate counseling and consent, test the source patient for HIV/HBV/HCV/ and Syphilis (when available) in accordance with North Carolina Communicable Disease Law.

The Infection Control Officer will initiate the post-exposure procedure outline to keep accurate records and times each procedure was initiated and completed.

The Infection Control Officer will review the employee's medical record to ensure all vaccinations are current. A copy will be made for the resource physician.

Post-exposure counseling will be given to employees following an exposure incident. Counseling should include USPHS recommendations for prevention of HIV. The employee will be counseled about the risk of infection based upon the type of exposure the employee encountered. The risk of exposure will be evaluated based on the U.S. Department of Health and Human Services information contained in the counseling section of this plan.

Counseling will be available to all employees regardless of the employee's decision to accept serological testing.

After determining the risk of exposure, based on the source material and type of exposure the antiretroviral treatment guideline will be consulted, and the employee will have to make an informed decision about post-exposure treatment. The employee will sign consent or denial form after the employee makes an informed decision.

Based on the treatment choice, the employee will be sent to outpatient services or will be seen through the emergency room. If the employee elects not to receive post-exposure treatment or post-exposure treatment is not recommended, the employee will be sent to outpatient services. If the employee

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elects to have post-exposure treatment and post-exposure treatment is recommended or offered the employee will be seen in the emergency room. The employee will be counseled about the post-exposure treatment and will have a physical exam to ensure antiretroviral treatment is not contraindicated.

A consent or denial form for HIV testing will be completed. A copy will be made for the hospital. After consent is obtained, the exposed employee's blood is collected and tested as soon as feasible for HIV/HBV/HCV/Syphilis serological status. If the employee consents to the follow-up evaluation after an exposure incident, but does not give consent for serological testing, the blood sample must be preserved for 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline samples tested for HIV/HBV/HCV/Syphilis testing must be done as soon as feasible.

Standing Orders for post-exposure base-line employee testing will be completed at outpatient care. If the employee requires PEP, the additional labs need to be completed along with base line testing. A copy needs to remain in the employee's record.

Workman's Comp. The Infection Control Officer will complete form.

The Infection Control Officer or the Assistant Infection Control Officer will make an appointment for the employee to see the resource physician for post-exposure follow-up, evaluation and counseling about the test results. Post-exposure counseling will be given to employees following an exposure incident. Counseling should include USPHS recommendations for prevention of HIV. These recommendations include refraining from blood and semen. Or organ donation; abstaining from sexual intercourse or using measures to prevent HIV transmission during sexual intercourse; refraining from breast feeding infants during the follow-up period. In addition, counseling must be made available regardless of the employee's decision to accept serological testing.

The Infection Control Officer will investigate the exposure. The results of the investigation will be given to the employee in writing in the post-exposure follow-up and evaluation report. This will be used to prevent future exposure to all employees. This will also list the dates for post-exposure follow-up testing. It is the employee's responsibility to follow through on all testing procedures.

The Healthcare professional written opinion completed by the Communicable Disease Nurse, will be completed within fifteen days. A copy will be placed in the employee's medical file. The employee will receive a copy of this report. The Healthcare Professional's written opinion for Hepatitis B is limited to whether hepatitis B vaccination is indicated and if the employee received the vaccination. The written opinion for post-exposure evaluation must include information that the employee has been informed of the results of the evaluation and talked about any medical conditions resulting from the exposure that may further require evaluation and treatment. All other findings or diagnoses must be kept confidential and not included in the written report. The employee will receive a copy of the evaluation of health care professional's written opinion within fifteen days of completion of the evaluation.

All post-exposure follow-up testing will be conducted through the direction of Davidson County Human Resources/ Risk Management.

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EMPLOYEE

Medical evaluation/follow-up may consist of the following:

- An Anti-Hbs should be done to establish immune status on each employee. If adequate immunity is established, no further lab studies are indicated for Hepatitis B.
- If adequate immunity is not established (an adequate antibody level is $> 10\text{ml u/ml}$). The Hepatitis B virus post-exposure recommendations from CDC will be followed.
- Anti-HBc and RPR will be repeated on the employee in six weeks after the incident if the patients contact blood results were found positive or the exposure was a high-risk exposure.

The Designated Infection Control Officer will consult with the Communicable Disease Nurse, who may prefer to treat employees with HBIG or HBV vaccine at time of incident depending on circumstances of incident. Hepatitis tests are usually back within three working days and employees can receive HBIG and HBV vaccine within the recommended time span.

Employee MEDICAL EVALUATION/follow-up relating to HIV may consist of the following:

The employee will be counseled regarding HIV testing as soon as possible after the exposure. After counseling, a consent form will be signed by the employee whether consenting or declining HIV testing. Testing is voluntary.

Employee HIV testing will offer at:

Baseline (time of exposure)

6 Weeks (If high risk exposure or source patient test positive.)

12 weeks (If high risk exposure or source patient test positive.)

6 months (If high risk exposure or source patient test positive.)

Determining the need for HIV post-exposure prophylaxis (PEP) after occupational exposure will be based on Public Health Services Guidelines for the Management of Health-Care Worker Exposure to HIV and Recommendations for Post-Exposure Prophylaxis. (Figure 1)

If there is substantial risk or known HIV infection, control measures discussed with the employee include:

No donating blood, plasma, body tissue, breast milk or sperm.

Protection of sexual partners from contact with body fluids and use condoms during sexual intercourse.

Avoidance of pregnancy until HIV status is known.

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The employee will be encouraged to complete baseline testing. The employee is informed by the Designated Infection Control Officer that refusal to baseline testing may have some bearing on Workers Compensation claims that may be filed in the future.

The employee may choose to use his/her personal physician, Communicable Disease Nurse, or the NC Public Health Department for HIV testing and counseling as preferred.

After exposure, the Designated or Assistant Infection Control Officer will set up the laboratory tests for post-exposure testing after counseling and consent. All results will be sent to Communicable Disease Nurse confidentially.

Note: If the employee consents to baseline blood collection but does not consent at time for HIV serologic testing, the sample shall be preserved for 90 days. Within 90 days of the exposure incident, if the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

The Communicable Disease Nurse will keep a record of the source patient's results as part of the health record of the exposed employee.

The employee should keep the exposure confidential in order to protect him or herself.

The exposed employee will be offered support services including but not limited to counseling and infection control information. These referrals will be based on the employee's desire for follow-up services.

Our service will provide these services to the employee at no charge.

The employee may enter the HIV testing program even if the source patient is negative or refuses testing. That decision would be an individual choice for the employee to make based on known risks of the patient, factors of exposure, and physician recommendations when given.

In all cases of exposure, the employee will:

Be advised to report any acute febrile illness that occurs within 12 weeks of exposure such as: fever, rash, enlarged lymph glands, or other flu-like symptoms.

Be informed of the patient's source test results by the Communicable Disease Nurse if a positive test or previous history reveals this information. When a negative test is performed, the Designated Infection Control Officer may report results to the employee on behalf of the physician.

Be informed of confidentiality requirements as required by NC General Statutes and as explained on the consent form concerning disclosure of the identify and infectious status of the source individual.

The employee Exposure report will be utilized to record causes of incidents and make recommendations for avoiding similar incidents in the future.

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MEDICAL RECORDKEEPING

Our service maintains comprehensive medical records on our employees. The Designated Infection Control Officer is responsible for setting up and maintaining these records, which include the following information:

Name of the employee.

Social security number of the employee.

A copy of the employee's Hepatitis B vaccine status.

Dates of any vaccines

Medical records are related to the employee's ability to receive vaccinations.

A copy of the results of examinations, medical testing, and follow-up.

A copy of the healthcare professional written opinion.

A copy of the information provided to the healthcare professional as outlined above.

As with all information in these areas, we recognize that it is important to keep the information on these medical records confidential. We will not disclose or report this information to anyone without employee's written consent (except as required by law). In addition, we will maintain these records for at least the duration of employment plus thirty years.

SHARPS INJURY LOG

Davidson County will maintain a sharps injury log for recording percutaneous injuries from contaminated sharps. The information in the sharp's injury log will be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log will contain, at a minimum:

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.

The sharps injury log will be maintained for the period required by 29 CFR 1904.6.

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Davidson County Emergency Medical Services Post-Exposure Incident Report

1. **Date of Exposure:** _____ **Time of Exposure:** _____
2. **Employee Name:** _____
3. **Employee Social Security Number:** _____
4. **Driver's Name:** _____
5. **Third Person:** _____
6. **Fire Department:** _____
7. **Source Patient's Name:** _____
8. **Source Patient's Social Security Number:** _____
9. **Name of the Receiving Facility:** _____
10. **Location where the patient was released:** _____
11. **Transport Time:** _____ **On Scene Time:** _____
12. **Ventilation:** _____
13. **Type of PPE Used:** _____

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14. Details of the procedure being performed:

15. Where and how the exposure occurred:

16. Was the exposure related to a sharp device? Yes/No

17. The type of device and how and when in the course of handling the device the exposure occurred:

18. Details of the exposure:

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19. The type and amount of fluid or material and the severity of the exposure. (e.g., for a percutaneous exposure, depth of injury and whether fluid was injected; or for a skin or mucous-membrane exposure, the estimated volume of material and duration of contact and condition of the skin {e.g., chapped, abraded, or intact):

20. Details about the exposure source. (i.e., whether the source material contained HIV or other bloodborne pathogens{s}, and if the source is an HIV –infected person, the stage of disease, history of antiretroviral therapy, and viral load, if known.)

21. Details about counseling, post-exposure management, and follow-up
