



NORTHAMPTON COUNTY

Department of EMERGENCY MEDICAL SERVICES



STANDARD OPERATING GUIDELINES

TOPIC: EXPOSURE CONTROL PLAN	SOG #: 2.17
Status: ACTIVE	Written: 03/19/2010
Written by: Hollye B. Carpenter	Revised: 01/01/2013
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PURPOSE

The Northampton County Department of EMS is committed to providing a safe and healthful work environment for our entire staff.

In pursuit of this goal, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CRF 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

The ECP is a key document to assist our organization in implementing and ensuring compliance with the standard, thereby protecting our employees.

SCOPE

All EMS Providers

CONTENT

POLICY

This ECP includes:

- Determination of EMS Provider exposure
- Implementation of various methods of exposure control, including:
 - Universal Precautions
 - Engineering and work practice controls
 - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training
- Recordkeeping
- Procedures for evaluating circumstances surrounding exposure incidents

Implementation methods for these elements of the standard are discussed in the subsequent pages of this ECP.

PROGRAM ADMINISTRATION

- The Northampton County Department of EMS is responsible for implementation of the ECP. The Northampton County Department of EMS will maintain, review



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and update the ECP at least annually, and whenever necessary to include new or modified task and procedures.

- Those EMS providers who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.
- The Northampton County Department of EMS will provide and maintain all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard. The Northampton County Department of EMS will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes. Contact location & phone number: 13294 Lankford Highway (Machipongo), 757-678-0411.
- The Northampton County Department of EMS will be responsible for ensuring that all medical actions required by the standard are performed and that appropriate employee health and OSHA records are maintained. Contact location & phone number: 13294 Lankford Highway (Machipongo), 757-678-0411.
- The Northampton County Department of EMS will be responsible for training, documentation of training, and making the written ECP available to EMS Providers, OSHA, and NIOSH representatives.

EMPLOYEE EXPOSURE DETERMINATION

The following is a list of all job classifications at our establishment in which all EMS Providers have occupational exposure:

<i>Job Title</i>	<i>Department/Location</i>
EMS Provider	EMS ~ Cape Charles Station
EMS Provider	EMS ~ Exmore Station
EMS Provider	EMS ~ Machipongo Station

The following is a list of job classifications in which some EMS Providers at our establishment have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals:

<i>Job Title</i>	<i>Department/Location</i>	<i>Task/Procedure</i>
None		



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METHODS OF IMPLEMENTATION AND CONTROL

Universal Precautions

All EMS Providers will utilize universal precautions.

Exposure Control Plan

EMS Providers covered by the bloodborne pathogens standard received an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All EMS providers can review this plan at any time by contacting the Northampton County Department of EMS and accessing the documents warehouse in EMScharts. If requested, we will provide an EMS Provider a copy of the ECP free of charge and within 15 days of the request.

The Northampton County Department of EMS is responsible for reviewing and updating the ECP annually and more frequently if necessary to reflect any new or modified task and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

Engineering Controls and Work Practices

Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practice controls used are listed below:

Body Substance Isolation:

- All body fluids and substances shall be handled as if infectious.

Alternative Hand Cleansing Protocol:

- Hand-washing is a primary infection control measure, which is protective of the EMS provider and the patient. Appropriate hand-washing must be diligently practiced. EMS Providers shall wash their hands thoroughly using soap and water when hands become contaminated and as soon as possible after removing gloves or other personal protective equipment.
- When other skin areas or mucous membranes come in contact with blood or other OPIM, the skin shall be washed with soap and water and the mucous membranes shall be flushed with water, as soon as possible.



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- Waterless hand cleaner or similar product with at least 70% alcohol, clean cloth/paper towels or an antiseptic wipe will be provided in all emergency response vehicles. When these alternatives are used, hands shall be washed with soap and running water as soon as feasible.

Sharps Management:

- All used sharp objects shall be considered infectious and shall be handled with extraordinary care.
- Used needles SHALL NOT BE RECAPPED, bent, or removed from the syringe. "Sharps" containers shall be utilized for disposal of all needles.
- Contaminated needles and other contaminated sharps (broken, glass, needles, knives, etc.) SHALL NOT be bent, recapped, or removed by hand. Shearing or breaking of contaminated needles is completely prohibited.
- Sharps containers must be closable, puncture resistant, labeled or color coded and leak-proof on the side and bottom and maintained upright throughout use.
- Containers are to be easily accessible to personnel and located in the immediate area where sharps are in use.
- Contaminated disposable sharps shall be discarded as soon as possible after use, in the disposable sharps container.
- When feasible contaminated sharps WILL NOT be picked up by the hand but rather by mechanical means: tongs, dustpan or forceps.
- Sharps disposal containers are inspected every shift by the EMS Provider and replaced whenever necessary to prevent overfilling.
- Overfilling of "sharps" containers creates a hazard when needles protrude from openings. Three-fourths (3/4) full containers must be promptly closed, taped and disposed of at the hospital.

Management of Contaminated Equipment:

- Each station shall provide an area for cleaning and disinfecting of protective equipment, protective clothing, portable equipment and the vehicle. This cleaning shall have proper ventilation, lighting and drainage connected to a sanitary sewer system.
- The station shall designate a location where a receptacle can be placed to receive contaminated waste. The receptacle shall be marked with a biohazard label, it shall be different in color from regular waste receptacles and shall be placed where it cannot be accessed by citizens and where there will be a minimum risk of accidental spillage.



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- Keep contaminated equipment separated from “CLEAN” equipment until it is decontaminated. All non-disposable equipment shall be cleaned with an EPA registered germicide or a 1:100 bleach/water solution.
- Equipment, which may become contaminated with blood or OPIM, shall be examined and decontaminated prior to placement back in service, repairing or shipping.
- If decontamination is not feasible, a readily observable biohazard label shall be affixed. The portion of the equipment, which is contaminated, must be indicated on the label and appropriate personnel notified.

Disinfecting and Cleaning Areas:

- Personnel shall utilize personal protective equipment as required when decontaminating and cleaning clothing and equipment. Only trained personnel wearing PPE shall decontaminate equipment.
- All bleach/water solutions shall be mixed daily or every twenty-four (24) hours. The mixture becomes ineffective after a twenty-four (24) hour period.
- All non-disposable equipment shall be cleaned with soap and water.
- After equipment is scrubbed clean, a 1:100 bleach/water solution (1/4 cup bleach/gallon water) or a commercial germicide shall be sprayed on the contaminated surface and allowed to sit for ten (10) minutes.
- Metal and electronic equipment shall be disinfected with 70% isopropyl alcohol or use of a commercial germicide on surfaces for ten (10) minutes.

Disinfecting and Cleaning of Personnel:

- If personnel are contaminated, station/work uniforms should be cleaned, removed and/or disposed of as determined.
- Clean the exposed area of person with anti-septic wipes as best as possible.
- Ensure personnel are decontaminated well before allowing them to move to the showers. This will prevent contaminated personnel from unnecessarily contaminating floors and/or carpet in the station.
- Have personnel shower with soap and hot water.

Evaluation of Practices:

Both EMS Providers and EMS Duty Supervisors are involved in this process in the following manner:

- Identification of needed changes in engineering controls and work practices through review of *OSHA records and employee interviews*.



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- Evaluation of new procedures and new products regularly by *review of literature on new products provided by suppliers.*

The Northampton County Department of EMS is responsible for ensuring that these recommendations are implemented.

Personal Protective Equipment (PPE)

Appropriate PPE shall be donned prior to initiating any type of patient care.

The public should be reassured that infection control PPE is used as a matter of routine for the protection of EMS providers and the patients EMS providers treat. The use of PPE does not imply a given patient has a communicable disease.

Employees shall wear PPE when doing procedures in which exposure to the skin, eyes, mouth, or other mucus membranes is anticipated. The articles to be worn will depend on the expected exposure.

PPE is provided to our EMS Providers at no cost to them. Training in the use of appropriate PPE for specific tasks or procedures is provided by The Northampton County Department of EMS.

The types of PPE available to EMS Providers are as follows:

- Gloves of various sizes, including latex free
- Masks
- Gowns
- Eye protection (shield masks and/or plastic safety glasses)
- Mouthpieces, resuscitation bags, pocket masks

PPE is located in each emergency vehicle. Extra may be obtained through the Northampton County Department of EMS, stored at 13294 Lankford Highway (Machipongo).

All EMS Providers using PPE must observe the following precautions:

- Wear appropriate gloves when it is reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured or contaminated, or if their ability to function as a barrier is compromised.
- Never wash or decontaminate disposable gloves for reuse.



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- Remove PPE after it becomes contaminated and before leaving the work area.
- Wash hands immediately or as soon as feasible after removing gloves or other PPE.
- All contaminated PPE shall be removed prior to leaving the work area and placed in a red plastic bag clearly marked with a biohazard label. The biohazard bag shall be placed in the appropriate receptacle either at the hospital or in the station for proper disposal, laundering and/or decontamination.
- Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
- Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

Housekeeping

Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see the following section "Labels"), and closed prior to removal to prevent spillage or protrusion of contents during handling.

Sharps disposal:

- All used sharp objects shall be considered infectious and shall be handled with extraordinary care
- Used needles SHALL NOT BE BENT, REMOVED FROM SYRINGE OR RECAPPED
- "Sharps" containers shall be utilized for disposal of used needles
- "Sharps" containers shall be taped closed and discarded properly when they become three fourths (3/4) full

Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and appropriately labeled or color-coded. Sharps disposal containers are available in each emergency vehicle.

Regulated Medical Waste disposal:

Types:



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- Liquid or semi-liquid or other potentially infectious material
- Contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed
- Items that are caked with dried blood or OPIM in a liquid or semi-liquid state if compressed
- Contaminated sharps
- Pathological and microbiological wastes containing blood or OPIM

Any of the substances listed above must be placed in containers, which are closable, constructed to contain contents and prevent leakage of fluids during handling, storage, transport or shipping.

Such containers shall be easily accessible to personnel needing them. Containers will be clearly marked with a biohazard warning label.

Regulated waste that has been decontaminated need not be labeled or color-coded.

Containers must be closed prior to moving/removal to prevent spillage or protrusion of contents during handling, storage, transport or shipping. If the outside of the container becomes contaminated, it is to be placed in a second container, which must have the same characteristics as the initial container as discussed above.

Other:

Bins and pails (e.g. wash or emesis basins) are cleaned and decontaminated as soon as feasible after visible contamination.

Broken glassware that may be contaminated is only picked up using mechanical means, such as a brush and dustpan.

Laundry

The following contaminated articles will be laundered by this company:

- Uniforms
- EMS Turnout Gear

Laundering will be performed by the Northampton County Department of EMS when necessary at either the Cape Charles or Exmore station.

The following laundering requirements must be met:



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- Handle contaminated laundry as little as possible, with minimal agitation
- Place wet contaminated laundry in leak-proof, labeled or color-coded containers before transport. Use red bags for this purpose.
- Wear the following PPE when handling and/or sorting contaminated laundry:
 - Gloves
 - Mask & gown as necessary

Labels

The following labeling methods are used in this facility:

Biohazard Symbol (appropriate size for item, orange or red in color)

The EMS Duty Supervisors of the Northampton County Department of EMS is responsible for ensuring that warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility. EMS Providers are to notify any EMS Duty Supervisor if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc., without proper labels.

HEPATITIS B VACCINATION

The Primary Designated Infection Control Duty Supervisor or their designee will provide training to EMS Providers on hepatitis B vaccinations, addressing safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost after initial EMS Provider training and within 10 days of initial assignment to all EMS Providers identified in the exposure determination section of this plan. Vaccination is encouraged unless: 1) documentation exists that the EMS Provider has previously received the series; 2) antibody testing reveals that the employee is immune; or 3) medical evaluation shows that vaccination is contraindicated.

However, if an EMS Provider declines the vaccination, the EMS Provider must sign a declination form (NCEMS FORM 2.23.1). EMS Providers who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept at the Northampton County Human Resource Department.



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Vaccination will be provided by the Northampton County Health Department, located at 7114 Lankford Highway (Nassawadox), or Cape Charles Medical Center, located at 216 Mason Avenue (Cape Charles).

Following medical evaluation, a copy of the health care professional's written opinion will be obtained and provided to the EMS Provider within 15 days of the completion of the evaluation. It will be limited to whether the employee requires the hepatitis vaccine and whether the vaccine was administered.

POST-EXPOSURE EVALUATION AND FOLLOW-UP

Should an exposure incident occur, contact the EMS Duty Supervisor at the following number 757-695-0180.

An immediately available confidential medical evaluation and follow-up will be conducted by an EMS Duty Supervisor. Following initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:

- Complete the NCEMS "Exposure Report" Form
 - document the routes of exposure and how the exposure occurred
 - Identify and document the source individual (unless the EMS Provider can establish that identification is infeasible or prohibited by state or local law).
- Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV and HBV infectivity; document that the source individual's test results were conveyed to the EMS Provider's health care provider.
- If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- Assure that the exposed EMS Provider is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
- After obtaining consent, collect exposed EMS Provider's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status.
- If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed EMS Provider elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.



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ADMINISTRATION OF POST-EXPOSURE EVALUATION AND FOLLOW-UP

The EMS Duty Supervisor ensures that health care professional(s) responsible for the EMS Provider's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of **OSHA's bloodborne pathogens standard**.

The EMS Duty Supervisor ensures that the health care professional evaluating an EMS Provider after an exposure incident receives the following:

- A description of the employee's job duties relevant to the exposure incident
- Route(s) of exposure
- Circumstances of exposure
- If possible, results of the source individual's blood test
- Relevant EMS provider medical records, including vaccination status

The EMS Duty Supervisor provides the EMS Provider with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

PROCEDURES FOR EVALUATING THE CIRCUMSTANCES SURROUNDING AN EXPOSURE INCIDENT

The EMS Duty Supervisor will review the circumstances of all exposure incidents to determine:

- Engineering controls in use at the time
- Work practices followed
- A description of the device being used (including type and brand)
- Protective equipment or clothing that was used at the time of the exposure incident (gloves, eye shields, etc.)
- Procedure being performed when the incident occurred
- Employee's training

The EMS Duty Supervisor will record all percutaneous injuries from contaminated sharps in a Sharps Injury Log.

If revisions to the ECP are necessary the Northampton County Department of EMS Primary Infection Control Duty Supervisor will ensure that appropriate changes are



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made, (Changes may include an evaluation of safer devices, adding job titles to the exposure determination list, etc.)

EMPLOYEE TRAINING

All employees who have occupational exposure to bloodborne pathogens receive initial and annual training conducted by a Certified Infectious Disease Trainer.

All EMS Providers who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- A copy and explanation of the OSHA bloodborne pathogen standard
- An explanation of our ECP and how to obtain a copy
- An explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
- An explanation of the use and limitations of engineering controls, work practices, and PPE
- An explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
- An explanation of the basis for PPE selection
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated and that the vaccine will be offered free of charge
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- Information on the post-exposure evaluation and follow-up that the Northampton County Department of EMS is required to provide for the EMS Provider following an exposure incident
- An explanation of the signs and labels and/or color coding required by the standard and used by the Northampton County Department of EMS.
- An opportunity for interactive questions and answers with the person conducting the training session.

Training materials for the Northampton County Department of EMS are available at 13294 Lankford Highway (Machipongo).



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RECORD KEEPING

Training Records

Training records (NCEMS FORM 2.23.4) are completed for each EMS Provider upon completion of training. These documents will be kept for at least three years at Northampton County Human Resource Department.

The training records include:

- The dates of the training sessions
- The contents or a summary of the training sessions
- The names and qualifications of persons conducting the training
- The names and job titles of all persons attending the training sessions

EMS Provider training records are provided upon request to the EMS Provider or the EMS Provider's authorized representative within 15 working days. Such requests should be addressed to EMS Director of the Northampton County Department of EMS.

Medical Records

Medical records are maintained for each EMS Provider with occupational exposure in accordance with 28 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

The Northampton County Human Resource Duty Supervisor is responsible for maintenance of the required medical records. These confidential records are kept in County Administration for at least the duration of affiliation plus 30 years.

EMS Provider medical records are provided upon request of the EMS Provider or to anyone having written consent of the EMS Provider within 15 working days. Such requests should be sent to the Northampton County Human Resource Duty Supervisor at PO Box 66, Eastville, VA 23347.

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by the Northampton County Human Resource Department.

Sharps Injury Log



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In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in a Sharps Injury Log. All incidences must include at least:

- Date of injury
- Type and brand of the device involved (syringe, suture needle)
- Department or work area where the incident occurred
- Explanation of how the incident occurred

The log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have personal identifiers removed from the report.