Occupational Exposure to Bloodborne Pathogens and Tuberculosis

The Charles County Association of Emergency Medical Services
The Charles County Volunteer Fireman's Association
The Charles County Department of Emergency Services

Table of Contents

General Information

Scope

The Charles County Department of Emergency Services, the Charles County Association of EMS and the Charles County Volunteer Fireman's Association recognize that many of its employees are involved in job responsibilities that may place them at risk for direct contact with blood and other potentially infectious material. It is the goal of these agencies to strive to reduce exposure in the employee population and thus reduce the incidence of occupational health risk. It is also the goal of these agencies to ensure that the patients served are offered protection from infection. The Charles County Exposure Control Plan will address both blood-borne pathogens and tuberculosis.

Throughout the remainder of this document, the following terms will be defined accordingly.

- The Charles County Association of EMS and the Charles County Volunteer Fireman's Association shall be referred to as "***the Associations***".
- The Charles County Department of Emergency Services shall be referred to as "***DES***".
- Members of any volunteer agency or any DES employee covered under this plan shall be referred to as "***employee".*** In accordance with NFPA guidelines, an employee shall include any volunteer or career member covered under this plan. The term employee will in no way indicate that a person covered under this plan is paid for their services.
- The ***Charles County Infection Control Committee*** shall be comprised of the Charles County Medical Director, the Charles County Infection Control Officer, the Associations Infection Control Officer and the DES Infection Control Officer.
- Throughout the county, there will be many "infection control officers." These positions will include:
    - Charles County Infection Control Officer – This position will be staffed by the Charles County Government's Safety Officer. They will act as the MIEMSS recognized point of contact for infection control issues within Charles County.

- DES Infection Control Officer – This position will oversee all infection control activities for the Charles County Department of Emergency Services.
- Associations Infection Control Officer – This position will oversee all infection control activities for the Associations and will coordinate the activities of the departmental infection control officers.
- Departmental Infection Control Officer – This position will oversee all infection control activities within an individual department, company or station. These departmental officers will report to the Associations Infection Control Officer.

Students and Ride-A-Long participants will be covered under the Exposure Control Plan with regard to post-exposure medical follow-up. However, the cost of medical care will be the responsibility of the individual. Students or ride-along participants must sign Student/Ride-Along Waiver forms (Addendum A) prior to performance of the scheduled duty.

At-Risk Determination

This Plan identifies employees who are deemed to be at-risk. This determination is assigned without the consideration of the use of personal protective equipment. The exposure determination assignments for employees were made based on if it could be "reasonably anticipated" that an employee would come into contact with blood or other potentially infectious materials. Thus, the core of this Plan will deal with exposure to blood and other potentially infectious materials (OPIM).

As all employees may have the opportunity to be exposed to an airborne transmissible disease, this plan will address education and training with regard to tuberculosis (TB), risk assessment, notification of exposure, testing and medical follow-up.

The following groups were reviewed to determine their risk for exposure.

DEEMED TO BE NOT AT RISK (*But covered in this plan***):**

- Dispatch Staff
- Administrative Staff
- Other non-patient care personnel

It should be noted, however, that if these individuals should sustain an exposure, they will be treated according to this plan's policy on post-exposure management.

DEEMED TO BE AT RISK FOR EXPOSURE:

- EMS Personnel (BLS and ALS providers)
- Non-EMS First Responders (Includes but is not limited to Firefighters, Special Operations, and Dive Team Personnel)

General Statement

This Exposure Control Plan shall be:

- Accessible to employees within 15 working days of their request.
- Reviewed and updated annually by the Charles County Infection Control Committee.
- Reflective of all current Centers for Disease Control recommended practices for protection of patients and staff.
- Reflective of ***applicable*** portions of the NFPA 1581 Infection Control Standard for Fire Departments

Duties of Supervisors and Managers

It shall be the policy of all DES and Associations supervisors and managers to:

A. Support and enforce compliance with the Exposure Control Program.

B. Correct any unsafe acts and refer any employee for remedial training if required.

C. Mandate safe operating practices on-scene and in-station.

D. Refer any individual for medical evaluation who may be unfit for work due to infectious disease or other reasons.

E. Ensure initial medical evaluations, immunizations, and infection control training has been completed prior to allowing any individual to begin EMS response.

F. Participate in education and training programs prior to active EMS response and attend on-going education and training programs.

G. Report off-the-job illness in accordance with the plan's work restriction guidelines.

H. Comply with and enforce departmental safety policies governing hair, nails, jewelry, and dress.

Immunizations

CDC Vaccination Recommendations for Healthcare Personnel

Vaccine	Recommendations in Brief
Hepatitis B	Give 3-dose series (dose #1 now, #2 in 1-month, #3 approximately 5 months after #2). Obtain anti-HBs serologic testing 1 – 2 months after dose #3.
Influenza	Give 1 dose of influenza vaccine annually.
MMR	For healthcare personnel without serologic evidence of immunity or prior vaccination, give 2 doses of MMR, 4 weeks apart.
Varicella (chickenpox)	For healthcare personnel who have no serologic proof of immunity, prior vaccination, or history of varicella disease, give 2 doses of varicella vaccine, 4 weeks apart.
Tetanus, diphtheria, pertussis	Give all healthcare personnel a Td booster every 10 years, following the completion of the primary 3-dose series.

The Center for Disease Control recommends the above referenced vaccinations for all healthcare personnel. Although the Associations and DES support these recommendations, it is the employee's responsibility to ensure that they have the appropriate immunity. To assist the employee, departmental Infection Control Officers will complete the Communicable Disease Health History Record (Addendum B) as well as the Immunization Record (Addendum C). These documents will help create an at-risk profile for each employee. Employees refusing to disclose this information must complete the Health and Immunization History Declination form (Addendum D). In addition, the CDC recommends routine screening for Tuberculosis based on the community's risk assessment. Each of these communicable diseases will be discussed in more detail below. As a general policy however, no employee shall be assigned to emergency response duties until certified as fit for duty by the department. As such, applicants must provide written proof of any previous Tuberculosis skin test results within two (2)

weeks of hire. All applicants will be offered TB skin tests, Hepatitis B Virus vaccination, infection control training and physical exams after completion of the application process.

Hepatitis B Virus (HBV)

HBV Vaccination Program

The Associations have had a Hepatitis B vaccination program in place for many years. Similarly, the Charles County Department of Emergency Services has had a Hepatitis B vaccination program in place upon its inception. The CDC began requiring HBV vaccines for all high school and college students in the fall of 2000 and began vaccination of all newborns in 1990. Therefore, most new employees have already been vaccinated. However, if an employee has not been vaccinated for HBV then the Hepatitis B Vaccine (Recombinant- Engerix**)** will be made available to all employees who are deemed to be at risk for occupational exposure. Vaccines will be offered at no cost to the employee. Vaccines will be administered within 10 days of initial assignment to a position that would place the employee at risk. The vaccine program will be administered under the direction of a physician designated by the individual department, through the Charles County Health Department or the MIEMSS-approved Paramedic Vaccination Program. Post-vaccine titer testing will be conducted by the original physician's office or the Charles County Health Department. The Health Department or other administering agency will assist in the documentation and tracking of employee vaccinations. Administration will be in accordance with the published standard set forth by the U.S. Public Health Department - Centers for Disease Control. A laboratory that is accredited will conduct any laboratory testing. Testing will be offered at no cost to the employee.

Vaccination records shall be maintained by the vaccinating agency. In addition, the Departmental Infection Control Officer will also maintain back-up records for their employees.

Each employee deemed to be at-risk will receive training regarding HBV's epidemiology, pathophysiology, transmission risks, vaccine safety and efficiency, route of administration, administration schedule and the risks/benefits associated with both receiving and declining the vaccine. There will be ample opportunity

for each employee to ask questions and have questions answered. Each employee therefore will be able to make an informed decision on whether to receive or decline the vaccine. Employees who decline to participate will be asked to sign a HBV Declination form (Addendum E) in accordance with the provision of 1910.10.30. This will also be kept on file in the individual's medical record. Each employee participating in the vaccine program will receive a HBV Vaccination Record (Addendum F) documenting the vaccine series.

Employees who elect to sign a declination form will be advised that if they should change their mind, the vaccine will be made readily available to them.

Employees who can show proof of previous vaccination against hepatitis B or who can document that they are antibody positive will not be candidates for the vaccine because they have immunity.

Employees with a documented allergy to yeast will be offered HEPTAVAX HB (Plasma derived) vaccine. Should they decline to receive this vaccine, they will be asked to sign a declination form with added information on their allergy status.
Employees who have a documented allergy to MERCURY will be offered a pediatric vaccine which does not contain mercury. This will be noted in the employee's medical file.

Pre-screening titers will be offered for employees who request it - at no cost to that individual. Pre-screening titers for exposure to Hepatitis B will NOT be required for participation in the vaccine program. Post vaccine titers will be offered at no cost to the employee. This will be done to ensure that there was adequate response to the initial vaccine series. Individuals that do not respond to the initial vaccination will be offered an additional series in accordance with the CDC's update guidelines.

Booster Doses

Currently, there is no formal recommendation from the Centers for Disease Control for booster doses of the HBV vaccine at any interval. At present, it is stated that the need for a booster is not indicated due to the "immunologic memory" offered by this vaccine. Should a formal recommendation for a booster be published, the Associations and DES will make booster doses available to at-risk employees free of charge.

RECORDKEEPING FOR HEPATITIS B VACCINE PROGRAM

Each employee will receive an immunization card that will note the dates of administration of each dose of HBV vaccine for their personal record. Personnel at the vaccinating agency along with the departmental Infection Control Officer will maintain complete records on vaccine administration. Records will be maintained for the duration of the individual's employment with the Charles County Department of Emergency Services plus an additional thirty (30) years. Departments belonging to the Charles County Volunteer Fireman's Association and the Charles County Association of EMS will likewise be required to keep the member's vaccination records on file for the duration of their membership plus an additional (30) years. This is in keeping with the requirements of OSHA 1910.10.30 and the OSHA medical record standard 1910.20.

Any employee who declines to participate in the program will sign a declination form (Addendum E). The departmental Infection Control Officer will keep this form on file for the duration of the provider's employment or membership with their respective department plus an additional thirty (30) years.

Employees who decline the vaccination and decline to sign the declination form will be referred for counseling and possible administrative action under the disciplinary action policy.

Influenza Virus

The Associations and DES will annually offer free flu vaccines to all employees. Flu vaccines will be administered through the Charles County Department of Health or through the MIEMSS-approved Paramedic Vaccination Program. Flu vaccines will be offered beginning in October and ending in mid-December of each year. Influenza Declination forms (Addendum G) should be obtained annually from all employees not wishing to receive the vaccination. These forms shall be kept in the employee's medical file.

This is in accordance with the Centers for Disease Control and Prevention guidelines and pandemic planning.

Measles, Mumps and Rubella (MMR)

At-risk employees should be immune to measles, mumps, and rubella. Those born in 1957 or later can be considered immune to measles, mumps, or rubella if they have documentation of (a) laboratory confirmation of disease or immunity or (b) appropriate vaccination against measles, mumps, and rubella (i.e., 2 doses of live measles and mumps vaccines given on or after the first birthday, separated by 28 days or more, and at least 1 dose of live rubella vaccine). Individuals who have an "indeterminate" or "equivocal" level of immunity upon testing should be considered nonimmune.

Although birth before 1957 generally is considered acceptable evidence of measles, mumps, and rubella immunity, at-risk employees should consider 2 doses of the MMR vaccine if they have no laboratory evidence of disease or immunity to measles, mumps, and/or rubella. (Reference *CDC, Healthcare Personnel Vaccination Recommendations*)

The cost for the MMR vaccinations and MMR titer testing is the responsibility of the employee and not that of the Associations or DES.

Varicella (Chickenpox)

It is recommended that all at-risk employees be immune to varicella. Evidence of immunity includes documentation of 2 doses of varicella vaccine given at least 28 days apart, history of varicella or herpes zoster based on physician diagnosis, laboratory evidence of immunity, or laboratory confirmation of disease. (Reference CDC, *Healthcare Personnel Vaccination Recommendations*).

New employees, who have failed to demonstrate immunity to chickenpox, will be advised to obtain the new chickenpox vaccine – Varivax. It should be noted that DES and the Associations will not be responsible for the cost of providing the chickenpox vaccine. Employees will be advised to contact the local Health Department for clinic hours and fees. Employees may also obtain this vaccination at their office of primary care. Employees who receive chickenpox vaccine (Varivax) should submit proof of vaccination for inclusion in their medical record.

Tetanus, Diphtheria, Pertussis (Td/Tdap)

All adults who have completed a primary series of a tetanus/diphtheria-containing product should receive Td boosters every 10 years. As soon as feasible, healthcare personnel younger than age 65 years with direct patient contact should be given a 1-time dose of Tdap…(Reference CDC, *Healthcare Personnel Vaccination Recommendations*).

The vaccine will be administered under the direction of a physician designated by the individual department or through the Charles County Health Department. The Health Department or other administering agency will assist in the documentation and tracking of staff participation. Administration will be in accordance with the published standard set forth by the U.S. Public Health Department - Centers for Disease Control. The vaccinating office will keep records of the vaccinations. The departmental Infection Control Officer will also keep copies for back-up recordkeeping. The vaccination will be provided at no cost to the employee.

Tuberculosis

Risk Assessment for Exposure to Tuberculosis (2007 – 2008)

Risk assessment was conducted by contacting the state Public Health Department Office of TB Control to obtain numbers of cases that had been reported in our general Department area for 2006-07. The Public Health Department releases the total number of cases for each area of the state. The number of active cases for 2007 statewide was 262. The number of cases serviced by Charles County EMS in 2007 was 0. No TB patient was knowingly treated or transported by any Charles County EMS entity. This is supported by the fact that no notifications were issued by the medical facilities as required by the Ryan White Law.

It should also be noted that there was a decrease in the number of TB cases nationally in 2006. For 2007, there were 13,303 reported nationally. During 2007, the largest number of cases occurred in foreign-born persons.

According to the Centers for Disease Control 2005 TB Guidelines, the areas serviced by the aforementioned departments fall in the "low risk" category based on the 2006-07 caseload. OSHA is currently enforcing these standards. Under the "low risk" heading, the implementation of a respiratory protection program is ***NOT*** recommended or required because there have been no documented exposures to county employees.

Based on this determination, there is no formal requirement for a Respiratory Protection Program based on the CDC, 2005 Guidelines for Tuberculosis.

Employees will be instructed to screen patients for TB and suspect patients will be masked and windows opened for risk reduction. If windows can not be opened, the ventilation system will be left "on" during transport. If the patient can not be masked, the employee should wear an N95 mask. This policy was developed, reviewed and agreed to by Katherine West, BSN, MS Ed, CIC, Infection Control Consultant who assisted in this process. Data will be monitored closely to determine the need to alter this risk determination. Data will be tracked by the Designated Officer. Should the numbers change or a shift in the PPD/TST testing results be noted, this risk assessment will be revisited.

Employees Deemed At-Risk for Tuberculosis

EMS providers with direct patient contact shall be considered at-risk. Employees listed in the at-risk group for possible exposure to tuberculosis will be offered baseline TST skin testing or GFT-G blood testing and post-exposure skin testing if indicated by the current CDC guidelines. PPD/TST administration for baseline and post-exposure testing will be administered at the Charles County Department of Health or at the employee's office of primary care.

Testing for Exposure to Tuberculosis

All employees deemed to be at risk for exposure to tuberculosis (TB) will be skin or blood tested upon joining to establish a baseline and then tested if an exposure occurs. If the skin test is used, the two-step method is to be used. If the rate of TB conversion appears to increase in the employee population for the Associations or DES, testing may be recommended on a more frequent basis.

Testing for TB will be done using the Mantoux test - administration of TST given by the intradermal method. This test will be read by a trained health care professional. Each employee will be required to sign consent prior to testing. Employees refusing PPD testing will be required to sign Tuberculosis PPD Declination forms (Addendum H). Employees who have not previously tested positive or have not been tested in the last 12 months will be tested using the two-step method. This is done to address the "booster phenomenon" and is in keeping with the current recommendations of the Center for Disease Control and Prevention (CDC). Consent or denial forms will be requested and kept on file in the employee's medical records file. Departments may consider offering QFT-G blood testing as an option. QFT testing does not require a return visit. Testing will be under the direction of the Charles County Health Department or the employee's office of primary care. The cost of the vaccination will be the responsibility of the Associations or DES.

Positive Tests for Exposure to Tuberculosis

Employees who test positive for Tuberculosis exposure will not be candidates for future testing. These employees will be required to complete the annual Tuberculosis Screening Questionnaire (Addendum S) surveying for potential signs and symptoms of active Tuberculosis. Those displaying signs and symptoms will be referred to a physician for further evaluation including a chest x-ray. Any employee who is found to have active Tuberculosis will be referred for physician follow-up.

Rationale for Exclusion

The employee job descriptions not included in the at-risk determination were based upon review of job duties outlined in the job description and the requirements for the application for the position.

The majority of administrative positions do not demonstrate that there may be "reasonable" risk. Consideration was also given to the aspect of "reasonably anticipated" risk. The ultimate decision regarding risk was made by interview with Agency personnel. However, in the event that an individual in the not-at-risk group would be exposed, they would be covered under the post-exposure management protocol.

Since ALL employees are not involved in the transport of patients or the provision of high-risk procedures, they are also exempt from a high-risk listing. (Reference formal risk assessment)

Human Immunodeficiency Virus (HIV)

Any employee requesting HIV testing may contact the Designated Officer or may directly contact the Public Health Department of HIV testing to obtain free and anonymous testing. It is not the employer's or department's responsibility to test in non-work exposure situations.

Work Practices

Work Restriction Guidelines

All illnesses listed under the work restriction guidelines program are to be reported to the Designated Officer.

AJIC
Volume 26, Number 3 **CDC Personnel Health Guideline**

Disease/problem	Work restriction	Duration
Conjunctivitis	**Restrict from patient contact and contact with the patient's environment**	**Until discharge ceases**
Cytomegalovirus infections	**No restriction**	
Diarrheal diseases		
Acute stage (diarrhea with other symptoms)	**Restrict from patient contact, contact with the patient's environment, or food handling**	**Until symptoms resolve**
Convalescent stage, *Salmonella* spp.	**Restrict from care of high-risk patients**	**Until symptoms resolve; consult with local patents and state health authorities regarding need for negative stool cultures**
Diphtheria	**Exclude from duty**	**Until antimicrobial therapy completed and 2 cultures obtained ≥24 hours apart are negative**
Enteroviral infections	**Restrict from care of infants, neonates, and immunocompromised patients and their environments**	**Until symptoms resolve**
Hepatitis A	**Restrict from patient contact, contact with patient's environment, and food handling**	**Until 7 days after onset of jaundice**
Hepatitis B		
Personnel with acute or chronic hepatitis B surface antigenemia who do not perform exposure-prone procedures	**No restrictions★; refer to state regulations; standard precautions should always be observed**	
Personnel with acute or chronic hepatitis B a antigenemia who perform exposure-prone procedures	**Do not perform exposure-prone invasive procedures until counsel from an expert review panel has been sought; panel should review and recommend procedures the worker can perform, taking into account specific**	**Until hepatitis B e antigen is negative**

	procedure as well as still and technique of worker; refer to state regulations	
Hepatitis C	No recommendation	
Herpes simplex		
Genital	No restriction	
Hands (herpetic window)	Restrict from patient contact and contact with the patient's environment	Until lesions heal
Orofacial	Evaluate for need to restrict from care of high-risk patients	
Human immunodeficiency virus	Do not perform exposure-prone invasive procedures until counsel from an expert review panel has been sought, panel should review and recommend procedures the worker can perform; taking into account specific procedure as well as skill and technique of worker; standard precautions should always be observed; refer to stale regulations	
Measles		
Active	Exclude from duty	Until 7 days after the rash appears
Post exposure (susceptible personnel)	Exclude from duty	From 5th day after 1st exposure through 21st day after last exposure and/or 4 days after rash appears
Meningococcal infections	Exclude from duty	Until 24 hours after start of effective therapy
Mumps		
Active	Exclude from duty	Until 9 days after onset of parotitis
Post exposure (susceptible personnel)	Exclude from duty	From 12th day after 1st exposure through 26th day after last exposure or until 9 days after onset of parotitis
Pediculosis	Restrict from patient contact	Until treated and observed to be free of adult and immature lice
Pertussis		
Active	Exclude from duty	From beginning of catarrhal stage through 3rd week after onset of paroxysms or until 5 days after start of effective antimicrobial therapy
Post exposure (asymptomatic personnel)	No restriction, prophylaxis recommended	
Post exposure (symptomatic personnel)	Exclude from duty	Until 5 days after start of effective antimicrobial therapy
Rubella		
Active	Exclude from duty	Until 5 days after rash appears
Post exposure (susceptible personnel)	Exclude from duty	From 7th day after 1st exposure through 21st day after last exposure
Scabies	Restrict from patient contact	Until cleared by medical evaluation
Staphylococcus aureus infection		
Active, draining skin lesions	Restrict from contact with patents and patient's environment of food handling	Until lesions have resolved

Carrier state	**No restriction, unless personnel are epidemiologically linked to transmission of the organism**	
Streptococcal infection, group A	**Restrict from patient care, contact with patient's environment, or food handling**	**Until 24 hours after adequate treatment started**
Tuberculosis		
Active disease	**Exclude from duty**	**Until proved noninfectious**
PPD converter	**No restriction**	
Varicella		
Active	**Exclude from duty**	**Until all lesions dry and crust**
Post exposure (susceptible personnel)	**Exclude from duty**	**From 10th day after 1st exposure through 21st day (28th day if VZIG given) after last exposure**
Zoster		
Localized, in healthy person	**Cover lesions; restrict from care of high-risk patients†**	**Until all lesions dry and crust**
Generalized or localized in immunosuppressed person	**Restrict from patients contact**	**Until all lesions dry and crust**
Post exposure (susceptible personnel)	**Restrict from patients contact**	**From 10th day after 1st exposure through 21st day (28th day if VZIG given) after last exposure or, if varicella occurs, until all lesions dry and crust**
Viral respiratory infections, acute febrile	**Consider excluding from the care of high-risk patients‡ or contact with their environment during community outbreak of RSV and influenza**	**Until acute symptoms resolve**

*** Unless epidemiologically linked to transmission of infection**
† Those susceptible to varicella and who are at increased risk of complications of varicella, such as neonates and immunocompromised persons of any age.
‡ High-risk patients as defined by the ACIP for complications of influenza.

Personal Protective Equipment

Both the Associations and DES are committed to providing all at-risk employees with appropriate personal protective equipment at no cost to them. Personal protective equipment will continue to be issued to at-risk employees at no cost based on the needs of each particular work group and their anticipated exposure. Personal Protective Equipment (PPE) for employees will include, but not be limited to, disposable gloves, protective eyewear, surgical masks, cover gowns, waterless hand wash solution, and a Biohazard bag. PPE is available in each vehicle. Extra supplies are located in the station.

Employees will be instructed concerning the appropriate use of PPE. Compliance monitoring will implemented in accordance with the following guidelines.

1. In cases where an employee declines to use PPE in a particular situation because, in their judgment, its use would have interfered with the proper delivery of health care or that it would have posed a risk to personal safety, the employee's decision should be investigated. The employee must justify their decision and all findings should be well-documented.

2. If clothing becomes contaminated with blood or OPIM then it shall be removed as soon as possible;

3. All PPE shall be taken off prior to leaving the workplace, between calls, or when becoming contaminated;

4. When contaminated PPE is removed, it shall be placed in an appropriate area and in a designated container for disposal. Contaminated uniforms are to be placed in plastic bags for laundering by station personnel. All cost is to be paid by the employee's department.

5. PPE will be issued in appropriate sizes, and will be readily accessible at the worksite or will be issued directly to the employee. Non-latex supplies must be made available when necessary.

Use of Personal Protective Equipment

GLOVES

Gloves shall be worn when it can be reasonably anticipated that an employee may have hand contact with blood or OPIM, mucous membranes**,** and non-intact skin, when performing patient care procedures, or handling or touching contaminated items or surfaces**.**

In an effort to comply with the NIOSH Alert, the Associations and DES will move toward more use of vinyl gloves and away from latex gloves as much as possible. When latex is needed, low protein, powder free gloves will be used.

Disposable gloves shall be replaced as soon as practical when they become contaminated, torn or ripped.

Disposable gloves shall not be washed for reuse. Following glove removal, hands should be washed.

Heavy-duty utility gloves should be used when cleaning contaminated equipment, surfaces or when disposable gloves are insufficient.

Heavy duty utility gloves can be washed and reused as long as they are not torn or cracked.

Leather Gloves are to be worn for extrication and search activities.

MASKS

Mask combinations shall be worn when there is suspicion that an individual may have an airborne transmissible disease. The mask style issued shall be the molded fitted type.

If the patient is SUSPECT for or DIAGNOSED with TB, two masks are required. Place a surgical mask on the patient and the employee should don an N95 mask for themselves.

Masks, in conjunction with protective eyewear, will be used when it is anticipated that there is the opportunity for gross splatter of blood or OPIM into the eye, nose or mouth.

PROTECTIVE CLOTHING

Appropriate protective clothing such as cover gowns or aprons or similar outerwear shall be worn in exposure situations. The type to be used will be based on the exposure anticipated.

POCKET MASKS

All personnel trained in the administration of CPR will be trained in the use of either a bag/mask device or a pocket mask. All personnel will be trained in the proper use of the pocket mask, and the method for proper disposal or cleaning.

Quick Guide to the Use of Personal Protective Equipment

Task	Gloves	Eyewear/ Mask	Gown
Airway	x	available	available
CPR	x	none	none
Drawing Blood	x	none	none
Decontamination of Equipment	utility	If splatter Or splash anticipated	If splatter Or splash anticipated
Extrication	x	If splatter Or splash anticipated	If splatter Or splash anticipated
Field Delivery (child birth)	X	X	If splatter or splash anticipated
Injection	none	None	None
Intubation	x	x	available
IV Start	x	If splash Or splatter anticipated	available
Monitor	none	none	none
Oxygen	none	none	none
Suction	x	available	available
Trauma	x	x	x
Vital Signs	none	none	none

Clothing

Uniforms ***will*** be considered personal protective equipment for EMS employees and law enforcement personnel. Uniforms are considered to be contaminated when covered with blood/ OPIM and the area is too large to spot clean. Cover gowns (disposable) will be available for situations which require additional protection. No contaminated clothing needs to be disposed of, it can all be cleaned. Bloodborne pathogens are not transmitted by contaminated clothing once properly cleaned.

All clothing contaminated with blood or other body fluids, to include personal clothing, will be placed in a red bag and given to the supervisor to be laundered by staff personnel and paid for by the department.

Cleaning will be at no cost to Department employees. Gloves will be worn when handling contaminated clothing prior to bagging. All contaminated clothing will be removed as soon as possible and washed in detergent and hot water. Reference policy/procedure in section on workplace practices.

Additional PPE shall include:

- Disposable examination gloves in various sizes
- Latex gloves
- Utility gloves
- Protective eyewear
- Surgical style masks
- Waterless hand wash solutions
- Gowns
- Pocket masks

Notes

- PPE should be available in the back of the unit
- Shoe covers and head covers are not necessary for PPE in Fire/EMS activities.

N95 Respirators

Although current CDC TB guidelines do not require N95 respirators, the Charles County Department of Emergency Services issues them to all employees. In accordance with their use, the Department performs annual fit testing for all employees.

Work Engineering Controls - Purpose

Engineering controls address redesign of equipment to insure employee risk reduction, procedures which serve to reduce exposure such as cleaning equipment or areas which have been contaminated, and the use of barrier techniques that reduce direct contact with blood and **OPIM.**

Employees with the Associations and DES will follow the enclosed precautions in the course of their daily work to assist with risk reduction. These precautions are in accordance with those published by the CDC, the National Fire Protection Department (NFPA) 1581, Infection Control recommendations and OSHA.

Standard Precautions

All employees will adopt the practice of Standard Precautions to reduce the risk for exposure to blood and OPIM. The term Standard Precautions is a concept which considers blood and ALL bodily fluids, except sweat, to be potentially infectious. Use of this concept does not require that there be good visibility and a controlled work environment. This can be followed in all employee work areas.

Body Fluids Which Fall Under “Other Potentially Infectious Materials” (OPIM)

- CEREBROSPINAL FLUID
- SYNOVIAL FLUID
- AMNIOTIC FLUID
- PERICARDIAL FLUID
- VAGINAL SECRETIONS (sexual contact)
- SEMEN (sexual contact)
- ANY BODILY FLUID CONTAINING GROSS BLOOD

Cleaning Policies

- Contaminated areas of the vehicle will be cleaned after each run. This procedure should be completed as soon as possible.

- For all blood cleaning activities, a 1:100 bleach/water solution should be used.

- Decontamination of the vehicle will be done by following the posted weekly cleaning schedule.

- Cleaning will be conducted in the designated cleaning area. This area should allow for adequate ventilation and rinsing of equipment. This will most likely be the bay area.

- Documentation of the cleaning will be noted on the Infection Control Cleaning Log. (Addendum J)

- Variance from the standard will be allowed by a supervisor and should be based upon patient call volume.

- Any equipment used and taken to the medical facility will be cleaned by the medical facility prior to return to the department. This is in accordance with OSHA 1910.1030.

- All primary cleaning will be done at the hospital using decontamination supplies made available by the hospital.

- Standard cleaning solution should be a bleach-water disinfectant at 1:100 dilution (equals ¼ cup bleach per gallon of water). This solution can be stored for 24 hours. SaniCloth HB offers a wipe-and-go solution for small blood covered areas.

Cleaning Schedule

Equipment Categories

There are three distinct levels of patient care equipment, each of which requires a different level of cleaning or decontamination.

- Non-Critical Equipment – includes items such as stethoscopes and blood pressure cuffs. This level of equipment requires ***Cleaning.***

- Semi-Critical Equipment – includes items such as stretchers, vehicle walls and floors, communication headsets, and defibrillators. This level of equipment requires *Disinfection*.

- Critical Equipment – includes items such as resuscitation or intubation equipment. This level of equipment requires ***Sterilization, High-Level Disinfection or Disposal.***

Cleaning Definitions

Cleaning

Cleaning is the physical removal of dirt and debris. Members should use soap and water, combined with a scrubbing action. The scrubbing action is **KEY** to rendering all items safe for patient use. All equipment requires a minimum of cleaning. Cleaning must take place prior to any required Disinfection, High-Level Disinfection or Sterilization.

Disinfection

Disinfection is reducing the number of disease-producing organisms by physical or chemical means. Members should clean the item with soap and water before applying a Disinfection solution. Solutions such as bleach and water at a 1:100 dilution ratio are acceptable Disinfectants. A fresh Disinfectant Solution must be made every day. **DO NOT** use bleach solution in the cleaning of electronic equipment. Refer to the MSDS for each Disinfectant Solution to decide what personal protective equipment may be needed.

Remember, Disinfectants can be toxic or caustic. Disinfection Solution should have an EPA Registry Number. Routine disposal of the germicidal cleaning water in the drainage system is acceptable.

High-Level Disinfection

High-Level Disinfection is the use of chemical liquids for sterilization. Members should clean items before placing them in special solutions for a prescribed time. Items need to be removed using a sterile process. Items must then be rinsed with sterile water. These items must be stored in sterile wrapping until the next use.

Refer to the Material Safety Data Sheets for each Disinfectant Solution to learn what personal protective equipment may be needed. Remember Disinfectants can be toxic or caustic.

Guide for Specific Equipment

Key	
1	Dispose of equipment
2	Clean with soap and water
3	Disinfect with Bleach and Water @ 1:100
4	High-level Disinfection (Cidex OPA)
5	Launder

Item	**Level of Cleaning**
Airway	1
Backboards	2
Bite Sticks	1
Blood Pressure Cuffs	2, 3, 5
Bulb Syringe	1
Cervical Collars	1, 2
Dressing / Paper Products	1
Drug Boxes	2, 3
Electronic Equipment	Check Manufacturer's Recommendations
Firefighting PPE	5
KED	3
Laryngoscope Blade	4 or 1
Linens	5 or 1
Needles / Syringes	1
Oxygen Masks / Cannulas	1
Oxygen Humidifiers	1 or 3

Penlights	2
Pocket Masks	1 or 3
Restraints	2
Bag-Valve Masks	1 or 4
Scissors	2 or 3
Splints	2
Stethoscopes	2
Stretcher	2 or 3
Stylets	1 or 4
Suction Catheters	1
Suction Canisters	1 or 4
Uniforms	5

Post-Transport Cleaning

Following patient transport to the hospital, cleaning will be conducted at the hospital using solution supplied by the medical facility. Any medical equipment that must be left with the patient at the hospital should be cleaned by the hospital staff before being picked up by department personnel. If not cleaned, it should be properly bagged in accordance with OSHA 1910.1030 for transport to the station for cleaning.

If the floor of the vehicle is grossly contaminated, then hospital supplies will be used to mop the floor. If not heavily contaminated, the floor will be cleaned upon return to station.

Cleaning of Equipment Left at the Hospital with the Patient

The hospital must either clean the equipment or red-bag for Department members to transport safely to be cleaned at the station.

- (OSHA formal letter, Quip, October 4, 2000)

Linens

Local emergency departments use linen systems and allow a one-for-one exchange with EMS systems. Contaminated linen should be left at the hospital whenever possible in exchange for clean linen. When this is not possible, employees must use precautions when handling contaminated laundry. All bags containing contaminated laundry will be placed in appropriate bags and taken to the decontamination room for cleaning. Uniforms that are contaminated are to be bagged and taken to the decontamination room and processed in the washers and dryers at the Station. Contact the Infection Control Officer for any questions. The Department will verify that the individual charged with laundering the contaminated clothing will put on gloves (heavy duty-dishwashing style). Carefully open the bag and empty the contents into the washing machine. If there is the chance for blood splatter, then a cover gown should be worn. No special solution needs to be added to the wash. No special washing cycle is required. No special washing machine is required.

Medical Waste

Medical Waste is as defined by the attached document published by the State of Maryland.

All medical waste will be contained in accordance with Maryland State Law and the Environmental Protection Agency.

All sharps will be placed directly into a rigid container that is leak-proof, puncture-resistant and exhibit the universal biohazard symbol.

Other waste such as dressings, contaminated medical equipment, and contaminated clothing will be placed in a designated red bag and given over to the hospital for disposal or reprocessing.

All items meeting the State of Maryland definition for medical waste (see State Medical Waste Regulation) will be placed into red biohazard waste bags. When bags are full ¾, place into a cardboard box and call logistics for pick up. Full containers awaiting pick up should be stored in a secured area with a bio-hazard label on the door. This is in accordance with Maryland State Law

Sharps Risk Assessment

In order to minimize the risk of sharps injuries, the Charles County Medical Director has developed a policy which includes the mandatory use of needle-safe devices whenever possible. After evaluating several needle-safe devices, the following products were chosen for use in Charles County. This includes *Protect-A-Cath* catheters, *Vanish Point* syringes and retractable lancets. Any other similar product selected for use in Charles County requires medical director approval.

Although uncommon, when contaminated sharps injuries have occurred they have most often been the result of improper disposal. Failure to place the device in a sharps disposal box, failure to properly secure the locking mechanism after use and inappropriate recapping of needles are all significant contributors to sharps injuries. Training, therefore, stresses the importance of properly securing all sharps after use. The Charles County Medical Director maintains a strict "No Recapping Policy" for the management of all sharps devices.

Education and Training

GENERAL GUIDELINES FOR EDUCATION &TRAINING

Charles County EMS and Fire departments will allow for attendance at a train-the-trainer session to prepare key personnel to serve as trainers in each specific workplace setting. All employees will be provided training at no cost to them, and the training will be offered during normal working hours. Training for this certification is being conducted by Katherine West,BSN,MSEd,CIC, Infection Control Consultant

Training for all department employees will be provided at the time of initial assignment and on an annual basis thereafter. The department's infection control training officer will reserve the right to require additional training if he/she feels previous training was not in keeping with standards. Annual training for all current employees will be completed within one year of their previous training. Annual training will update employees on the diseases and/or department changes in policy/procedure.

All training content will be reviewed on a continual basis and when changes in procedures or equipment are noted, additional training will be scheduled.

Training will include:

- How to access a copy of the OSHA standard and the Charles County Exposure Control Plan.
- Epidemiology of bloodborne diseases and their symptoms to include HIV, Hepatitis B, Hepatitis C and Syphilis.
- Epidemiology and symptoms of tuberculosis.

- The Department's Exposure Control Plan will be presented along with information on how an employee/member can obtain a copy of the plan.
- A review of tasks that each employee performs and how they might be at risk for exposure.
- A review of the use of PPE and the limitations of PPE in certain circumstances.
- The type of PPE that is available and why that type was selected.
- In-depth information on the Hepatitis B vaccine program and TB skin testing program.
- Information on what action will be taken when an employee is exposed to TB or blood-borne pathogen including how to seek medical attention, who to contact and how to follow-up
- Information on what should be included in the post-exposure management.
- Explanation of the signs and labels to be used in the handling and storage of medical waste.
- How an employee can access their medical records.
- Latex glove allergy and sensitivity issues
- Work restriction guidelines
- Needle safe devices
- Hand hygiene
- TB risk assessment
- Flu vaccine program
- State testing laws

All programs will allow for interactive questions and answers with a knowledgeable instructor. The instructor will be knowledgeable in communicable diseases and infection control and be able to relate this information to each specific work area. Training will be conducted by the training officers who have attended a certified course in infection control training. Employees attending Bloodborne Pathogen or other Infectious Disease training should be notated on the Continuing Education Sign-In Sheet (Addendum K).

CPR Manikin Cleaning and Training Issues

Basic Considerations

1. Students should be told in advance that the training sessions will involve "close physical contact" with fellow students.

2. Students should not actively participate in training sessions if they have dermatological lesions on hands or oral areas; if they are known to currently be infected with a communicable disease, or if they have been exposed to an infectious process.

3. If more than one cardiopulmonary resuscitation (CPR) manikin is used, students should be assigned in pairs, with each pair having contact with only one manikin.

4. All persons responsible for CPR training should be thoroughly familiar with good hand washing procedures and the proper cleaning of manikins.

5. Manikins should be inspected routinely for cracks or tears in the plastic surfaces; these could make cleaning more difficult.

6. The clothes and hair of the manikin should be washed monthly or whenever visibly soiled.

Cleaning After Each Participant

1. After each participant, the manikin's mouth and lips should be wiped with a 2X2-gauze pad wetted with a solution of 1:100 bleach and water solution or 70% isopropyl alcohol. The surface of the manikin should remain wet for at least 30 seconds before it is wiped dry.

2. If a protective face shield is used, it should be changed for each student.

For Two-Rescuer CPR

1. During the two-rescuer CPR, each student should have his/her own CPR mask, as there is not time to disinfect between students. The second student to practice ventilation should "simulate ventilation. This recommendation is consistent with the current training recommendations of the American Heart Department.

2. Training in the "obstructed airway procedure" involves the student using his/her finger to sweep foreign matter out of the manikin's mouth. This action could contaminate the student's finger, if there is an open area, with saliva from the previous student. The finger sweep should be simulated, performed on a manikin that has been decontaminated, or a finger cot should be used.

Cleaning of Manikins

1. Rinse all surfaces with fresh water

2. Wipe all surfaces with a mixture of bleach and water at a ***1:100 dilution*** (1/4-cup bleach per gallon of water). This solution must be mixed fresh for each class.

3. Rinse with fresh water and dry all surfaces. Rinsing with alcohol will aid drying time of internal surfaces and will prevent the survival and growth of bacteria and/or fungus.

Post-Exposure Management

Exposures Defined

The following occurrences should be reported directly to the designated infection control officer:

1. A contaminated needle stick injury
2. Blood / OPIM in direct contact with the surface of the eye, nose or mouth
3. Blood / OPIM in direct contact with an open area of the skin
4. Cuts with a sharp object covered with blood / OPIM
5. Human bites where blood is drawn

Post-Exposure Procedure

Immediate Management of Injury

- If the exposure is a sharps injury
    - Let the area bleed freely
    - Wash the area with soap and water or the waterless hand wash solution
    - If bleeding continues, dress the wound as necessary
- If the exposure involved a splash to the eye, nose or mouth
    - Flush the area for ten (10) minutes with water

Notification

In accordance with OSHA 1910.1030, the employee will be instructed to contact the Designated Infection Control Officer (DICO), if they feel that they have been involved in a possible exposure situation. Exposure reporting will be done with regard to bloodborne and airborne transmissible diseases. At times, it may be more appropriate for the employee to contact the on-duty supervisor or officer for their department who then must notify the DICO for the exposed employee. The Designated Infection Control Officer will conduct the initial investigation of the incident and contact the appropriate hospital officer, if needed**.**

Initial Treatment

Should exposure management/treatment be deemed necessary, the employee will be advised by the Designated Officer where to seek additional medical treatment, and what that treatment will involve. When the source patient is transported to a hospital emergency department then initial testing and treatment should occur at the receiving facility. If the source patient is unknown or is not being transported to a hospital then the exposed employee should seek initial testing and treatment at Ft Washington Medical Center. Any employee refusing post-exposure evaluation and/or treatment should receive on-site counseling for the risks associated with refusal. If the employee continues to refuse evaluation and/or treatment then the employee should complete the Post-Exposure Medical Treatment Declination form (Addendum L).

Testing and treatment will be conducted by or under the direct supervision of a licensed physician or other health care professional who is familiar with the OSHA standards, the Centers for Disease Control and Prevention medical follow-up guidelines and the criteria for pre-exposure and post-exposure counseling. Although the specific procedures followed may vary on a case-by-case basis, the general guidelines apply.

1. The source patient, if known, will be evaluated for the presence of communicable diseases including but not limited to HIV, Hepatitis B and Hepatitis C virus. All applicable laws governing consent should be followed by the testing facility. Rapid tests for bloodborne pathogens should be used when available.

2. If the source patient tests positive for a communicable disease, the exposed employee should be tested in order to evaluate their baseline status.

3. The hospital should contact the Designated Infection Control Officer with test results for follow-up.

4. The Designated Infection Control Officer should evaluate the employee's immunity to applicable diseases based on the employee's medical record.

5. If it is determined that an employee has been exposed to a communicable disease, the employee will receive appropriate post-exposure counseling and will be offered initial prophylactic treatment in accordance with the published recommendations set forth by the U.S. Public Health Department (Centers for Disease Control and/or the Advisory Committee on Immunization Practices).

6. All exposed employees will be referred for long-term management and counseling to a physician specializing in Infectious Diseases. Contact information for this physician can be found in Addendum T.

Post-Exposure Recordkeeping

Medical records of exposure medical management will be **confidential.** Confidential elements will include the following:

1. Documentation of the route of exposure and the circumstances under which the exposure occurred.

2. The identification of the source individual, unless it is not feasible that this information be obtained.

3. In the State of Maryland, the source individual need not consent to testing UNLESS there is clear documentation of a health care worker exposure determined by the physician.

4. Results of the source individual's blood test shall be made available to the exposed employee. The exposed employee should hold this information to be confidential.

5. Release of source patient tests results is NOT a HIPAA violation. This is covered by the Minimum Necessary Rule and the Federal Ryan White Law.

General Guidelines

The appropriate Designated Infection Control Officer will advise the exposed employee as to whether a medical facility will need to handle an employee exposure injury and treatment.

The Designated Officer will initiate the referral for post-exposure management following a question and counseling session.

The employee, if deemed necessary, will be offered Hepatitis B (HBV), Human Immunodeficiency Virus (HIV), Hepatitis C and VDRL testing. If the employee consents to baseline blood testing, but does not wish to have testing done at that time for HIV, then the hospital will preserve the blood for at least 90 days. If within the 90 days following the incident, the employee elects to have the testing performed, then it will be done as soon as possible.

Exposures which require medical treatment (prophylaxis) will be offered treatment that is in accordance with the published protocols set forth by the CDC. Protocols for HBV, HCV, HIV, Syphilis and Tuberculosis are to be available**.**

ALL exposed employees will receive counseling. This will be conducted by a health care professional who has been trained in pre-and post test counseling and should be documented on the Physician Counseling Record (Addendum M).

Responsibility for Exposure Determination

The attending physician at the receiving facility shall be contacted by the Associations or DES Infection Control Officer (ICO) who will notify them of the potential exposure. This physician will be responsible for making the final exposure determination. Documentation of the route of exposure and the circumstances of the exposure will be furnished by the ICO to assist with this determination. If the ICO or the exposed employee disagrees with the physician's decision, the Charles County Safety Officer (CCSO) who serves as the Charles County Infection Control Officer will be contacted. The CCSO will be provided with details of the exposure in addition to the source patient's test results when available. If the employee insists on treatment when a non-exposure has been ruled, the CCSO shall confer with the Charles County EMS Medical Director to make an ultimate determination on whether an exposure has indeed occurred.

The Charles County EMS Medical Director will furnish a written opinion letter regarding the exposure within 15 days of the incident as set forth in the regulation to the exposed employee. A copy of this letter will also be sent to the employee's DICO to insure and verify compliance. Final notification/management must be made within 48 hours. The Designated Officer will document that the employee has been informed of the evaluation results. This should be in accordance with the 48 hour time frame set forth in the *Ryan White Law***.**

Employees who have post-exposure medical evaluation and follow-up conducted by a physician other than a Department physician will be responsible for the costs associated with non-service physician care.

Receiving Hospital's Responsibility

The receiving hospital is responsible for source patient testing. Rapid HIV testing and rapid HCV testing is to be performed on the source patient. This is done to comply with the 2005 CDC Guidelines and to expedite testing on the behalf of the exposed employee (OSHA 2001). The

Designated Infection Control Officer will be notified of the source patient test results.

Department Responsibilities

The employee's department will furnish any and all relevant medical information to the office of the designated medical care provider. This may include immunization information to the initial receiving facility or more complete health information to the long-term infectious control physician when required.

If the exposure was a needle stick injury or an exposure to TB resulting in a positive skin test, the Designated Officer shall report this event to Charles County's Safety Officer who will complete an OSHA 300-report form and the Sharps injury log. The OSHA 300 form will contain records of contaminated injuries that require "more than" first aid. All other contaminated sharps injuries will be recorded on the sharps injury log with no employee identification.

The department will be responsible for maintaining all records for the duration of the employee's membership or employment with the department plus an additional thirty (30) years as set forth in the OSHA regulation.

Exposure to Deceased Patients

The Office of the Medical Examiner will perform necessary blood testing on the deceased patient if there is a documented health care worker exposure. The Medical Examiner will expedite the testing process to assist in meeting the prescribed time frames for post-exposure medical follow-up. Notification of the Medical Examiner will be done by the Charles County Safety Officer.

** NOTE: It may be helpful to tag the body bag to note that an exposure occurred.

Other Exposures

Syphilis

Procedure	**Action / Notes**
Wash area well with soap and water	Reduces the number load of organisms
Reduce exposure and complete any necessary reporting forms	Assists with exposure recordkeeping and documentation for Worker's Compensation
Await source patient test results	Exposed employees are entitled to this information
Report for medical evaluation and testing	If results are positive on the source patient then the post-exposure treatment is appropriate
Treatment – IM injection of long-acting Penicillin 2.4 million units	If allergic to penicillin, oral Doxycycline or tetracycline may be given

Tuberculosis

Procedure	**Action / Notes**
If: - an unprotected exposure occurs - and the employee has no documented negative test in the past three months - and was not previously	- Persons who have tested positive in the past should not be tested. - A PPD/TST skin test is good for three months.

positive, a Mantoux skin test should be given as soon as possible.	
If this skin test is negative, the employee should be retested in 8 – 10 weeks.	The incubation period is 4 – 12 weeks.
If the exposed employee tests positive (> 5 mm reaction) or shows signs and symptoms of TB, a chest x-ray should be performed.	
Employees testing positive following an exposure should be evaluated for preventive therapy in accordance with CDC guidelines.	
If over 35 years of age and INH or RIF therapy is prescribed then liver function should be monitored.	Evaluation is important for each employee because some may develop drug-induced hepatitis. Pregnant employees also need close evaluation. Alcoholic beverages should be avoided.
Healthy employees who are receiving preventive treatment for TB exposure should be allowed to continue to work.	

Varicella (Chickenpox)

In the event that a non-immunized employee is exposed to the chickenpox, the employee should complete an incident report and notify their DICO.

The DICO will refer the exposed employee for post-exposure medical management. Healthy staff members will be offered vaccine post exposure. Staff who are pregnant or immuno-compromised will be offer VZIG . Post-exposure treatment may involve antibody testing and consideration of the administration of Varicella-zoster immune globulin (VZIG).

The exposed employee should be removed from duty for the 10th day following the exposure until the 21st day. If the employee has not developed the chickenpox, they may then return to duty. If the employee does develop the chickenpox, then he/she may not return to work until all lesions are crusted and dried.

Employees who have an on the job exposure will be covered under workers compensation for time off.

Compliance Monitoring and Documentation

Recordkeeping for Sharps Injuries

The OSHA 300 Log

Sharp injuries should be grouped in with all other work-related injuries. This is a different document with different requirements than the Needle stick Injury Log. The OSHA 300 Log will be maintained by the Charles County Safety Officer. A work-related sharps injury should be reported to the Safety Officer and recorded on the log if:

- It causes a death
- It causes an illness
- It involves an injury which requires medical treatment beyond first aid (even if treatment is offered and refused).
- It resulted in an exposure

First Aid	Medical Treatment (recordable)
❑ **Antiseptics during first visit**	❑ **Treatment of infection**
❑ **Application of bandage**	❑ **Application of antiseptics at 2nd and 3rd visits**
❑ **Use of non-prescription medications**	❑ **Administration of >1 dose of prescription medication**
❑ **Single dose of prescription medication**	❑ **Administration of hepatitis vaccination**
❑ **Administration of tetanus shot or booster**	❑ **Lab test or x-ray that shows injury or infection**
❑ **Lab test or x-ray that shows no injury or infection from that injury**	

The Sharps Injury Log **(States may have additional requirements)**

All contaminated sharps injuries must be recorded. Non-sharp related exposures are not recorded here.

- ❑ **The report has names**
- ❑ **Department where exposure incident occurred**
- ❑ **How the incident occurred**
- ❑ **Type and brand of sharp involved in the exposure incident**

This information may be recorded on a separate document or may be included in the data you collect following an exposure investigation. It is acceptable to maintain the information in

computer files if you are able to sort the report for sharps injuries only and access it in a timely manner for OSHA if requested.

Sharps Injury Log

In all instances, injuries resulting from the handling of a sharps object should be recorded on the Sharps Injury Log (Addendum N). These records will be maintained by the department. Sharp injuries that do not meet the aforementioned OSHA 300 criteria need not be reported to the County Safety Officer.

Compliance Monitoring

Both the Associations and DES recognize their responsibility to provide personal protective equipment, education, and post-exposure reporting and follow-up for employees at risk for exposure. They also recognize the responsibility of their employees to comply with the established policies and procedures set forth in the Exposure Control Plan. Thus, departments who have employees identified as having job responsibilities which place them at risk will conduct compliance monitoring activities on a regular basis. The time frame between monitoring will be decided by the department's designated officer.

The purpose of compliance monitoring is to verify that the county's program for reducing employee risk for exposure remains on course. It will also ensure that the Department is in compliance with all applicable laws, standards and guidelines. Compliance monitoring will also serve to identify training needs or problems that required solutions. The plan's disciplinary action policy will be followed for employees who do not comply with this established plan. (See Disciplinary Action Policy). DES employees are subject to disciplinary action policies found in the Charles County Government Personnel Manual.

Compliance monitoring forms include the Employee Evaluation Record (Addendum O), the Station Evaluation Record (Addendum P) and the Policies Evaluation Record (Addendum Q).

Disciplinary Action Policy

The purpose of the exposure control plan is to reduce the risk for occupational exposure. Our plan is effective if followed as written. Periodic and unannounced monitoring will be conducted to ensure that employees are complying with this plan.

Compliance with the exposure control plan is a member responsibility. Non-compliance will be noted and records maintained of each incident and member interview. Retraining and education will be offered. Disciplinary action for DES employees will be in accordance with the Charles County Government Policies and Procedures Manual. Corrective action for all other employees will include the following:

1. First Action – Initial offenses will be subject to verbal warnings that, although verbal, should be recorded and kept on file.

2. Second Action – Second offenses for the same non-compliant event will include a written warning. In addition, the employee should be required to attend an education session addressing the issue at hand.

3. Third Action – Third offenses for the same non-compliant event shall include a day off and an education session addressing the issue at hand.

4. Fourth Action – Fourth offenses for the same non-compliant event shall include dismissal from Charles County EMS.

If an employee has repeated infractions for ***different*** offenses then the following disciplinary action policy should apply.

1. After an employee has received two (2) verbal warnings for unrelated infractions, a written warning should be issued for any third offense.

2. Fourth infraction – Fourth offenses for any non-compliant event shall include a day off and an education session addressing the issue at hand.

3. Fifth infraction – Fifth offenses for any non-compliant event shall include dismissal from Charles County EMS.

Summary Recordkeeping

The Charles County Department of Emergency Services, the Charles County Association of EMS and the Charles County Volunteer Fireman's Association will ensure that accurate recordkeeping will be established and maintained for each employee deemed to be at risk for occupational exposure.

These records will be maintained by each department's Designated Infection Control Officer. In addition, records will also be maintained by any other facility providing vaccines, titers, post-exposure management, and counseling. Records will be maintained for the duration of the individual's employment with the Charles County Department of Emergency Services plus an additional thirty (30) years. Departments belonging to the Charles County Volunteer Fireman's Association and the Charles County Association of EMS will likewise be required to keep the member's vaccination records on file for the duration of their membership plus an additional (30) years. This is in keeping with the requirements of OSHA 1910.10.30 and the OSHA medical record standard 1910.20.

Department medical records will be stored securely in a designated location. Only the department's Infection Control Officer will have access to the files. These records shall remain locked in order to maintain confidentiality. **All medical records will be kept confidential. Contents will *not* be disclosed or reported to any person within or outside the workplace without the employee's express written consent, except as required by law or regulation. Any employee requesting a release of their medical records must submit an Employee Release of Medical Records form (Addendum R).**

Information for the medical records will include:

1. Name and social security number of the employee
2. A copy of the hepatitis B vaccine record and PPD status
3. Consent/Denial forms
4. A copy of results of examinations and follow up procedures as required by the OSHA regulation
5. A copy of the healthcare provider's written opinion(s) following any exposure.
6. Copies of any information given to the employee to assist with post-exposure management.

Employee medical records will be maintained for at least the duration of their employment or membership plus thirty years in accordance with the OSHA standard, 1910.1030.

Should an employee/member submit a written request for a copy of their medical records, this will be done within 15 days of the request.

Information for the training records will include

1. Dates of the training session
2. The content or summary of the material presented
3. The names and qualifications of the instructor(s)
4. The names and job titles of all persons attending the training session
5. Signatures for all attendees

ALL training records will be maintained for three (3) years.

Training records are not confidential records and will be provided upon request to the employee or the employee's representative within 15 days of the request.

If the Charles County Department of Emergency Services, the Charles County Volunteer Fireman's Association or the Charles County Association

of EMS should cease to do business, it shall notify the Director of the Maryland State OSHA office at least three months prior to the end of business. The Director may require that all records be transferred to him/her before the end of the three-month period.

Glossary

Blood means human blood, human blood components, and products made from human blood.

Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Clinical Laboratory means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

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

Contaminated Laundry means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Engineering Controls means 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.

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

Hand washing Facilities means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

Licensed Healthcare Professional is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

HBV means hepatitis B virus.

HIV means human immunodeficiency virus.

Needleless systems means a device that does not use needles for: (1) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) The administration of medication or fluids; or (3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure means 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.

Other Potentially Infectious Materials means (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

Personal Protective Equipment is 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 are not considered to be personal protective equipment.

Sharps with engineered sharps injury protections means a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source Individual means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal Precautions is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by technique).

Appendix

Student / Ride-Along Waiver

I understand that there is a potential risk for exposure to bloodborne pathogens or Tuberculosis (TB) when participating in an observation program in the fire/rescue work environment.

I have been offered an opportunity to ask questions about these diseases and the risk of exposure and to have those questions answered.

Should I become exposed to blood or other potentially infectious materials, I will be advised by the fire/rescue service to seek medical attention at the location specified in their Exposure Control Plan. I understand that the fire/rescue service is NOT responsible to cover the costs associated with post-exposure medical treatment/counseling.

_____ _____

Signature Date

_____

Name (Print)

Communicable Disease Health History Record

Name:

Confidential

Disease	Date of Illness			
Measles (Rubeola)				
Measles (Rubella)				
Mumps				
Chickenpox				
Hepatitis	Type			
Tuberculosis	Type			
Meningitis	Type			
Malaria	Type			
HIV Infection				
Latex Allergy / Sensitivity	Yes		No	

Signature:_____ Date:_____

Immunization Record

Name:

Confidential

Vaccine	Date of Administration	
Hepatitis B		
Hepatitis B Titer		Result:
TB Skin Test		Result:
Measles, Mumps, Rubella – Dose 1		
Measles, Mumps, Rubella – Dose 2		
Tetanus / Diphtheria		
Chickenpox		
Influenza		
Hepatitis A		

Signature:_____ Date:_____

Health & Immunization History Declination

I have attended education and training on bloodborne pathogens & tuberculosis, and I have reviewed the forms requesting health and immunization/vaccination history.

I understand that this information is to be confidential and would only be used to assist in the evaluation of whether I should be offered a vaccine or immunization as a preventive measure prior to any exposure event or for post exposure evaluation and treatment.

I decline submitting this information to the Designated Infection Control Officer. I understand that if I change my mind, I will be able to complete the forms and receive any recommended immunizations or vaccinations.

_____

Name (Print)

_____ _____

Signature Date

Hepatitis B Virus (HBV) Declination

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If, in the future, I continue to have occupational exposure to blood or other potentially infectious materials, and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

_____

Name (Print)

_____ _____

Signature Date

Reason (optional):

HEPATITIS B Vaccination Record

Name			
Vaccine is to be administered in three doses. It should be given in the deltoid muscle of the arm **only**. The schedule is as follows: • Initial Dose • Four weeks after the first dose, the second dose should be administered. • Six months after the first dose, the last dose should be administered.			
First Dose			
Second Dose			
Third Dose			
Post Vaccine Testing			
Date		Result	

Influenza Vaccine Declination

This form is to document that I have been offered the annual flu vaccine by my department free of charge.

I have received education and training regarding the benefits of participating in the annual flu vaccine program in conjunction with the Centers for Disease Control and Prevention Guidelines published on February 24, 2006. I have been given the opportunity to ask questions and to have those questions answered. However, I have chosen to decline this offer.

_____ _____

Signature Date

_____

Name (Print)

Tuberculosis (Mantoux) Screening Declination

I have attended an educational session on Tuberculosis (TB). This session included information regarding the Mantoux skin test, which is used to determine whether the bacteria causing TB is residing in my body.

I understand that I may be occupationally exposed to TB, and that I may be at risk for acquiring TB. I understand that the Centers for Disease Control and Prevention (CDC) and the Occupational Safety and Health Administration (OSHA) recommend that I be tested to determine whether I have contracted TB infection.

I have been given the opportunity to be tested using the Mantoux skin test at no cost to myself. However, I decline TB screening at this time. I understand that, by declining, I am at risk of having TB without my knowledge. I understand that I will be able to obtain testing for TB in the future if I choose to change my mind.

_____

Name (Print)

_____ _____

Signature Date

Infection Control Cleaning Log

Week of: _____

Area	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Stock dates checked							
Bench and doors cleaned							
Driver Area Cleaned							
PPE stocked							
Sharps container checked – Dispose when ¾ full							

Continuing Education Sign-In Sheet

Program Title:_____

Date:_____ Time:_____

Presenter:_____

Presenter Credentials:_____

Target Audience:_____

Name	Job Title	Affiliation

Attach copy of handouts or outline of the training

Post – Exposure Medical Treatment Declination

I understand that due to my occupational exposure I may be at risk for acquiring _____ disease. I have been given the opportunity to be treated prophylactically for this exposure, at no charge to myself. However, I decline follow-up medical treatment at this time. I understand that by declining this treatment, I continue to be at risk for acquiring the disease to which I have been exposed. I understand that if I acquire this disease I will be placed under the Departments work restriction guidelines.

_____
Name (Print)

_____ _____
Signature Date

Physician Counseling Record

This form is to serve as documentation that _____,
an employee of the _____,
has been advised of the results of laboratory testing that was performed on
_____. This laboratory work was performed for
the purpose of post-exposure follow-up.

Appropriate counseling was provided to this employee and all test results will remain confidential. A copy of the results will be held in the employee's confidential medical record.

_____ _____
Physician Signature Date

_____ _____
Employee Signature Date

Sharps Injury Log

Employee Name	Date	Description of the Incident (include location of incident, task performed, and device used)

Employee Evaluation Record

Task / Procedure	Yes	No	Comments
1. Personal protective equipment was available	☐	☐	
2. Hand washing was observed	☐	☐	
3. Sharps container was used	☐	☐	
4. Gloves were used according to established policy	☐	☐	
5. Eyewear was indicated and used according to SOG	☐	☐	
6. Masks were indicated and used according to SOG	☐	☐	
7. PPE was appropriate	☐	☐	
8. Patient was advised regarding the use of PPE	☐	☐	
9. If PPE was not used per SOG, explain the circumstances	☐	☐	
10. Patient history information was handled according to departmental policy	☐	☐	
11. Patient family was advised regarding use of PPE	☐	☐	
12. Exposures were promptly reported	☐	☐	
13. All needles and debris were removed from the scene	☐	☐	
14. PPE was properly disposed of according to department procedures	☐	☐	
15. Vehicles were cleaned following transport	☐	☐	
16. Cleaning was done using the proper agent	☐	☐	
17. Contaminated areas were cleaned	☐	☐	

Monitor _____ Date _____

Employee _____

Station Evaluation Record

Criteria	Yes	No	Comments
1. Station area is clean	☐	☐	
2. Kitchen is clean and orderly	☐	☐	
3. Refrigerator is set at _____ degrees	☐	☐	
4. Trash is in a covered container	☐	☐	
5. Bathrooms are clean	☐	☐	
6. Hand washing solutions are available	☐	☐	
7. Hand washing solution containers are filled	☐	☐	
8. Waterless hand wash solutions are available	☐	☐	
9. PPE is readily available	☐	☐	
10. Laundry facilities are provided ◯ In Station ◯ Laundry Service	☐	☐	
11. Specified area for cleaning equipment	☐	☐	
12. Contaminated linen is bagged and labeled as biohazard	☐	☐	
13. Stocked medical supplies are in a clean area	☐	☐	
14. Solutions for high-level disinfection are in date, covered and in an appropriate container	☐	☐	
15. There is documentation of all routine cleaning of vehicles and equipment	☐	☐	
16. Sharps containers are located in each decontamination area	☐	☐	
17. Staff is aware of the policy for reporting exposures	☐	☐	
18. Bio-hazard signs are properly posted	☐	☐	
19. Infectious waste containers are readily available	☐	☐	

20. There is a designated area for storage of infectious waste	☐	☐	

Monitor	
Date	
Station	
Action Plan	
Next Review	

Policy Evaluation Record

Criteria	Yes	No	Comments
1. Exposure incidents and follow-up are in the employee health record	☐	☐	
2. Immunization records are in each employee health file	☐	☐	
3. Education and training records are in each employee health file	☐	☐	
4. Employee job descriptions contain information on OSHA Category assignment	☐	☐	
5. Employees are participating in the Hepatitis B Vaccination program	☐	☐	
6. Employees have reviewed the departmental infection control program	☐	☐	

Monitor	
Date	
Station	
Action Plan	
Next Review	

Employee Release of Medical Records

I, _____ (full name of employee), do hereby authorize _____ (individual or organization holding the medical records) to release to _____ (individual or organization authorized to receive the medical information), the following medical information from my personal medical records:

_____
_____
_____
_____

(Generally describe the information to be released)

I give my permission for this medical information to be used for the following purpose:

_____
_____
_____
_____

but I do not give permission for any other use or disclosure of this information. This release is valid for this request only. Any future releases of information must be accompanied with a new request.

_____ _____
Employee Signature Date

_____
Employee Name (Please Print)

Tuberculosis Screening Questionnaire

Employee Name		Date	
Please indicate if you are having any of the following problems for three to four weeks or longer.			
	Yes	**No**	
Chronic Cough (greater than 3 weeks)			
Production of sputum			
Blood-streaked sputum			
Unexplained weight loss			
Fever			
Fatigue / Tiredness			
Night Sweats			
Shortness of Breath			

_____ _____

Employee Signature Date

Designated Infection Control Officers Listing

INFECTION CONTROL OFFICER	CELL PHONE	ALTERNATIVE PHONE
Charles County Safety Officer		
Joane Gulvas		301-645-0687
Charles County Department of Emergency Services		
Robbie Jones	301-399-0079	301-609-3427
Michael Morgan	301-399-1007	540-287-7538
NDW-Indian Head		
Charles County Association		
Sheila Howard		
Company 1		
Company 2		
Company 3		
Company 4		
Company 5		
Company 6		
Company 7		
Company 8		
Company 9		
Company 10		
Company 11		
Company 12		
Company 13		
Company 14		
Company 15		
Company 51		
Company 58		
Company 60		
Charles County Infectious Control Physician		
Paul Pomilla, MD	410-535-2005	Calvert Internal Medicine Group 110 Hospital Rd, Ste 310 Prince Frederick, MD 20678

Documentation

DOCUMENTS USED IN THE PREPARATION OF THIS PROJECT:

1. APIC Core Curriculum - Infection Control
2. 29 CFR Part 1910.1030- Bloodborne Pathogens
3. 29 CFR Part 1910.20 - Medical Records
4. Centers for Disease Control and Prevention - 1994 Guidelines for Prevention and Control of Tuberculosis
5. Centers for Disease Control- 1989 Guidelines for Public Safety Workers
6. 42 CFR Part 84 Subpart K, Volume 60, Federal Register June 8, 1995:30338
7. West KH: Infectious Disease Handbook for Emergency Care Personnel, ACGIH, 1994, 3rd. Edition
8. NIOSH Alert, Latex Glove Sensitivity, June, 1997
9. CDC Guidelines for Health Care Worker Infection Control, Draft, Federal Register, September, 1998
10, The Source, IC/EC, Inc., 1998, Springfield, Virginia
11. Guidelines for Infection Control in Health-Care Personnel, 1998, AJIC, June, 1998
12. Medical Waste Regulations – State of Maryland
13. CPL 2-2.44D – Enforcement Document for Occupational Exposure to Bloodborne Pathogens, OSHA, Nov. 5, 1999
14. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post exposure Prophylaxis, MMWR, June 29, 2001

15. Needle stick Prevention Act, US Congress, March, 2001
16. Hand Hygiene Guidelines, October 2002, Centers for Disease Control
17. CPL 2-2.69 Compliance Directive, Bloodborne Pathogens, November 27, 2001
18. Hepatitis B vaccination requirements for personnel providing first aid as a collateral duty, OSHA 11/1/2000, Standard Number 1910.1030(f)(2);1960
19. Controlling Tuberculosis in the United States; Recommendations from the American Thoracic Society, CDC and the Infectious Disease Society of America, MMWR, September 25, 2005
20. Controlling Tuberculosis in the United States, Centers for Disease Control and Prevention, September 30, 2005
21. Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Settings, 2005. Centers for Disease Control & Prevention, December 30, 2005
22. Updated US Public Health Service Guidelines for the Management of Occupational Exposures to HIV, Recommendations for Post exposure Prophylaxis, Centers for Disease Control and Prevention, September 30, 2005
23.Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Settings, 2005, MMWR, December 30, 2005
24. Influenza Vaccination of Health-Care Personnel, MMWR, February 24, 2006, Centers for Disease Control & Prevention, Atlanta, GA
25. A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP) Part II: Immunization of

Adults, December 8, 2006, Centers for Disease Control & Prevention, Atlanta,