

**OKALOOSA COUNTY
EMERGENCY MEDICAL SERVICES
STANDARD OPERATING PROCEDURE**

Title: Exposures/Infection Control
Policy: 303.00
Purpose: To reduce exposure among team members and thus reduce the incidence of occupational health risk.

Policy:

Okaloosa County EMS is committed to providing a safe and healthful work environment for our entire staff. Implementation of various methods of exposure control include:

- Universal Precautions
- ECP (Exposure Control Plan)
- Work practice controls
- Personal Protective Equipment
- Housekeeping
- Vaccinations

Prevention

Universal Precautions – Body Substance Isolation

Okaloosa County EMS, employees shall regard all human blood and body fluid as infectious for HIV/HBV and other blood borne pathogens and take appropriate protective steps to protect themselves from unprotected contact with such fluids. Though HIV/HBV transmission has not been documented from urine, feces, vomitus, sputum, saliva, sweat or tears, employees are directed to consider all body fluids as potentially hazardous and protect themselves accordingly. This is primarily due to the frequently uncontrolled conditions present in pre-hospital emergency medical services making fluid differentiation difficult if not impossible.

All employees will utilize universal precautions in accordance with the Okaloosa County EMS Policy with all patient contacts. Universal precautions are defined as the use of all appropriate preventative equipment. This equipment includes the proper use of gloves, gowns, face and eye protection and other equipment as provided or authorized by OCEMS.

Precautions for Patients with Known Infectious Diseases

In the event that transportation is requested for a patient who is known to be the carrier of an infectious disease, the crew will be provided with all appropriate information. The crew will receive all information that has been provided to the OCEMS dispatcher. Under no circumstances will OCEMS refuse service / treatment / transport to a patient based on their infectious status unless deemed to be a public health hazard (i.e., Ebola, etc.), in which case specialty teams may be utilized to facilitate treatment and transport.

Upon arrival at the pickup facility, the crew shall confirm the infectious condition of the patient, and any specific precautions to be aware of.

Patients who are deemed to be infested with insects or contaminated with harmful substances will be decontaminated thoroughly and wrapped in the provided transport cocoons.

Upon arrival at the receiving facility, the crew shall notify the person assuming responsibility for the patient's care of the patient's condition and infectious status. This notification shall be made in a discreet fashion both verbally to the receiving personnel and in writing on the patient care report.

Infectious Control Manual (ICM)

All OCEMS employees will receive initial Infection Control training during their orientation process. All employees have an opportunity to review this plan at any time during their work shifts by consulting the Infection Control Manual.

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Engineering and Work Practices

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

1. The following engineering controls have been developed to minimize the risk of exposure.

- Impervious sharps / needle disposal containers in every ambulance
- Impervious sharps / needle disposal / protection devices in carry-in equipment
- Waterless alcohol-glycerin based hand cleaner in every vehicle
- Disposable bag valve mask resuscitators in every ambulance
- Labeled red plastic biohazard bags in every ambulance
- Personal protective equipment (PPE) provided for OCEMS employees
- Approved disinfectant provided on all ambulances
- Use of retractable lancets for blood glucose sample retrieval
- Patient transport cocoons for body fluid and infestation isolation

2. Work Practices are defined as those practices utilized by personnel in the performance of their job to assist in the prevention of exposures. Specific examples of work practice controls are:

- Disposable gloves must be worn when any contact with body fluids is anticipated.

- Employees will cover and protect from body fluid exposure while on duty all open cuts, abrasions and otherwise non-intact skin.
- Employees will flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with body fluids.
- Hands and other skin surfaces shall be washed immediately and thoroughly. Hot water and soap with vigorous lathering of the entire area for at least 15-30 seconds is recommended. If running water and soap is not available, the alcohol-glycerin based hand wash provided shall be utilized. This is the approved cleaning for field settings. The above mentioned soap and water washing should be done as soon as possible after the use of any alcohol-glycerin based hand wash. Thorough washing of hands should occur:
 - between patient contacts
 - Following glove removal
 - After using restroom facilities
 - Prior to eating
 - After covering nose and mouth when coughing or sneezing
 - After trash and/or infectious waste disposal
 - Any time hands are visibly soiled
 - Employees will carry with them and have readily available a change of uniform in case of contact with body fluids or insect infested patients
 - Employees should wash all skin surfaces thoroughly before the uniform change
 - All linen, clothing, and any other potentially contaminated materials will be removed from the Medic Unit upon recognition of infestation exposure
- All used needles and sharps shall not be recapped, bent, broken or sheared unless you are administering a controlled drug via injection route. Recapping of a controlled drug shall be done using a single handed scoop technique in which the hand holding the sharp is used to scoop up the cap from a flat surface. This procedure is only permitted after the administration of a controlled drug via injection route due to the need to account for un-used controlled drugs. All used needles and syringes must be placed directly into designated containers/holders. Under no circumstances are they to be placed unguarded on any surface or in carry-in equipment.
- Full sharps containers shall be properly sealed, removed from the ambulance and disposed of in a safe manner in accordance with OCEMS Policy 408.00 Vehicle Cleaning Standards.
- All spills of blood/body fluid shall be cleaned up as soon as possible. While wearing PPE, soak up visible contaminants with paper towels and follow by cleaning a soaking spray of disinfectant, allowing the manufactures recommended soak prior to wiping off. Place towels and gloves in red biohazard bag and dispose of in designated infectious waste container.

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- Contaminated reusable equipment shall be washed in hot soapy water, rinsed and disinfected with an approved disinfectant or bleach solution of 1:10 using approved universal precautions during cleaning.
- Drivers are to properly remove and dispose of their PPE after loading the patient in the patient compartment and wash their hands using the alcohol-glycerin based hand wash before entering the cab of the vehicle. Drivers are to wear new PPE prior to unloading the patient from the ambulance.
- Family members, walking wounded, and other non-employees shall not be permitted to ride in the cab of the ambulance if they are visibly contaminated with blood or other body fluids, under any circumstances.
- Employees shall not store food in refrigerators, freezers, shelves, cabinets, or on countertops or bench tops, or any other location in which blood or other potentially infectious materials are present or are likely to be present.
- Employees shall attempt to minimize the spray, splash, or splatter of blood or other potentially infectious materials while performing procedures that involve these substances.
- During post-mortem procedures the following shall take place:
 - The blood and all body fluids of all deceased patients should be considered potentially infectious;
 - Employees shall wear PPE when contact with blood and other body fluid is anticipated.
- Employees shall assure that all equipment which may become contaminated with blood or other potentially infectious materials is examined and decontaminated as necessary prior to servicing, shipping, or reusing. Equipment that remains contaminated shall be labeled as specified in this exposure control plan.
- Employees shall be cognizant of and attempt to prevent contamination of the station and its contents. In the event the station becomes contaminated with either infestation or body fluids, the area will be evacuated and the branch commander notified. The branch commander will work in concert with operations and logistics to ensure that the area is properly cleaned and exterminated as necessary. Professional cleaners and exterminators shall be the vendor of choice for proper sanitation.
- In the event of infestation the linen and other cloth items in the station shall be sealed in a bag and brought to logistics and placed in the dryer to allow heating to a temperature of at least 100 degrees. The linen then should be run through a wash cycle to ensure cleanliness.

Personal Protective Equipment (PPE)

OCEMS will provide at no cost to the employee, personal protective equipment which does not allow the penetration of blood and other potentially infectious materials to work clothes, undergarments, skin, eye, mouth, and mucous membranes. The PPE must be worn as specified in this policy. Uniforms that are provided by OCEMS are not intended to be and should not be considered personal protective equipment. OCEMS shall repair or replace any lost, stolen or damaged issued PPE.

Equipment

OCEMS provides training in the use of the appropriate PPE for the tasks or procedures employees will perform. It is the policy of OCEMS that appropriate PPE will be used on all patient contacts. As part of the new employee Orientation/Training Program, all new employees must be required to demonstrate knowledge of the PPE location and procedure for use.

The on-duty crew members are responsible for having their PPE with them in appropriate quantities. PPE shall be carried aboard each emergency vehicle in a quantity sufficient to protect all crew members and anyone else (students, ride along, etc.) on board the emergency vehicle. PPE will be accessible to all potentially exposed employees. Employees are responsible for carrying their issued PPE at all times while out of the emergency vehicle. Replacement PPE may be obtained as necessary through EMS Logistics. All employees are responsible for ensuring that assigned vehicles are stocked with PPE of all sizes at all times. OCEMS shall maintain the following items in all emergency vehicles:

- Disposable Impervious Gowns
- Face mask/Eye Shield Combination Device
- Disposable Exam Gloves of various sizes

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- Waterless hand wash
- Bio-Hazard bags with Warning Labels
- Puncture Resistant Sharps Container
- Portable Puncture Resistant Sharps Container (in carry in equipment)
- Protective Eyewear (Goggles)
- High Level Disinfectant Solution

Gloves shall be worn in the following situations:

- All patient encounters where blood or body fluids are visible or have the potential to become present;
- Handling soiled linen;
- Touching/cleaning soiled surfaces;
- Performing invasive and vascular access procedures;
- Handling blood or other body fluids in containers;
- Starting IV's, drawing blood, and manipulating stopcock of lines;
- Emptying the drainage from urinary catheters;
- Digital examinations of mucous membranes;
- Endotracheal suctioning;
- Endotracheal intubation;
- All patient encounters where employees have open sores on hands.

Eye Protection will be worn during intubation and in any situation when there is any anticipation of spraying or spattering of any body fluids and in any situation that has the potential for eye injury, i.e. flying debris, chemical splashing, etc.

Masks, face shields and protective eyewear will be worn to prevent exposure of the mucous membranes of the mouth, nose and eyes and the upper respiratory tract. 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.

- During procedures likely to generate droplets of blood or other body fluids;
- During direct contact with a patient who is coughing excessively or is intubated and/or being suctioned;

Guidelines for Specific Medical Procedures

Endotracheal Intubation / LMA Insertion

- Personnel performing this procedure must wear gloves and protective eyewear.
- Personnel assisting with this procedure must wear gloves and protective eyewear.

Suctioning

- Personnel performing this procedure must wear gloves and protective eyewear.
- Personnel assisting with this procedure must wear gloves and protective eyewear.

Intravenous Access

- Personnel performing this procedure must wear gloves.
- Personnel assisting with this procedure must wear gloves.

Needle Thoracotomy

- Personnel performing this procedure must wear gloves and protective eyewear
- Personnel assisting with this procedure must wear gloves and protective eyewear.

Bag-Valve-Mask Ventilation

- Personnel performing this procedure must wear gloves.
- Personnel assisting with this procedure must wear gloves.

Interosseous Insertion

- Personnel performing this procedure must wear gloves.
- Personnel assisting with this procedure must wear gloves.

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OB Deliveries

- Personnel performing this procedure must wear gloves, mask, gown, and protective eyewear.
- Personnel assisting with this procedure must wear gloves, mask, gown, and protective eyewear.

Bleeding Control with spurting blood

- Personnel performing this procedure must wear gloves and protective eyewear. When bleeding is controlled, only disposable gloves are required.
- Personnel assisting with this procedure must wear gloves and protective eyewear. When bleeding is controlled, only disposable gloves are required.

Bleeding Control with minimal bleeding

- Personnel performing this procedure must wear gloves.
- Personnel assisting with this procedure must wear gloves.

Cardiopulmonary Resuscitation (CPR)

- Personnel performing this procedure must wear gloves.
- Personnel assisting with this procedure must wear gloves.

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removal of gloves or other PPE. Use of an alcohol-glycerin based hand sanitizer is permitted, but in no way is use of a sanitizer to replace hand washing at the first available opportunity. Please refer to hand hygiene section.
- Remove PPE and replace between patients, if torn punctured, contaminated or if its ability to function as a barrier is compromised.
- In no instance is a vehicle to be driven while wearing PPE that have been used to examine or touch patients, potentially exposed waste materials, blood products or body fluids. All PPE should be removed before getting into the front of an ambulance.
- Employees shall remove all personal protective equipment and place it in a designated container immediately after use.
- Wear gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces.
- Remove immediately or as soon as feasible any garment or uniform contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface as much as possible. Employees will have a backup uniform available and ready for use and will change into back up uniform immediately or as soon as feasible (105.00 Uniform and Appearance). Employees needing to change their garment or uniform will do so before responding on any other calls. To minimize migration of contamination beyond the work area, employees must remove any contaminated garments or uniforms and wash up before leaving the work area and going into a non-field work area.

Equipment/Materials Processing

All equipment, supplies, or other materials that are non-disposable (cardiac monitor/defibrillators, traction splints, etc.), and used in direct contact with patients that must be turned in for repairs or servicing shall be decontaminated before being sent for repairs.

Cleaning the Ambulance

See Policy 408.00 Vehicle Cleaning Standards

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Labels

OCEMS shall assure that all containers in which infectious waste has been discarded has a warning label affixed to it and can be read at a distance of at least five (5) feet. The warning label shall be as follows:

All labels will be orange-red with contrasting colors for lettering and symbols. Red bags or containers may be used as a substitute for labels.

OCEMS will ensure warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into vehicles or facilities. Red biohazard bags, sharp containers are available from EMS supply, and ordered on the Daily Check Sheet. Employees are to notify the Shift Supervisor on duty if they discover regulated waste containers, contaminated equipment, etc. without proper labeling.

All red-bagged waste and sharps containers used at OCEMS will be red bagged or disposed of with disposal boxes located in the EMS Supply area at stations 1, 4 or 7.

Baseline and Annual Screening

At time of hire all personnel will be tested for Tuberculosis.

During the orientation process each OCEMS employee will offered immunization against hepatitis B at the time of their employment with the Department. This consists of 3 injections (0, 1 and 6 months). It is highly recommended that all personnel take this series, as the potential exists for occupational exposure. A Titer should be drawn every two (2) years to determine if anti body is still present. Federal Registry, Vol. 56, No. 235, Pg. 64179, D2. Injections are offered at no expense to the employee. The vaccination will be made available to employees after they have attended training on blood borne pathogens and within 10 working days of initial assignment to a job category with exposure. Vaccinations will be provided by the health department.

Personnel are expected to keep current tetanus immunization, i.e. every 5-10 years and when personnel sustain open trauma.

Exposure Notification

Any exposure occurrence should be reported immediately to the On-duty Shift Commander along with the completion of an Employee First Report of Injury form.

All forms should be forwarded to the designated Infection Control Officer (Shift Training Officer) as soon as possible with copies being filed in the employees' personnel file in Risk Management. The original should be filed in the employees' medical information file. The Infection Control Officer will forward original forms to the Risk Management Office within 24 hours or next business day.

The employee and the supervisor must complete the Employee First Report of Injury form answering all questions accurately and thoroughly. (Note: Any information concerning exposure is to be noted on form). The employee's supervisor should contact the County's Physician or Emergency Room (White Wilson Medical Center during business hours, and North Okaloosa Medical Center for after hours). The employee will be evaluated according to the established protocol for accidental exposure to Hepatitis Virus B; and treatment will be rendered as necessary.

If the employee has chosen to receive the Hepatitis B vaccine, the County Physician will administer the second and third injections at the appropriate time.

Any exposed employee who chooses not to take the Hepatitis B vaccination will be required to sign a declination statement. If an employee has declined the Hepatitis B vaccination, but later changes their mind and wishes to have the shots, the County will proceed with the vaccination series at no cost to the employee.

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Most potential exposures are relatively minor in nature and pose little risk to the employee. Proper use of universal and body fluid precautions will prevent almost all exposure risks.

Types of Exposure:

1. Needle stick: Needle sticks are the most common forms of exposure in the ALS environment. A needle stick is defined as any unintentional penetration of the skin by a used or otherwise unclean needle.
 - a. A needle stick with a clean needle is not an exposure.
 - b. A needle stick with a used needle that is dry or with little or no body fluid transference is of minimal risk but should be followed up with medical supervision.
 - c. A needle stick that results in gross body fluid transference is fortunately quite rare. This is the most dangerous form of needle stick and requires immediate medical attention.

 2. Body Fluid: Body fluid exposure occurs when a patient's body fluid (blood, urine, fecal matter, saliva, semen, CSF, or other substances) enter the exposed employee's body through the eyes, mouth, or open uncovered wounds. Again, proper use of universal and body fluid precautions will prevent almost all exposure risks.
 - a. Body fluids on clothing or closed skin do not normally constitute an exposure. Prompt cleaning of the clothes and/or skin will eliminate risk. Okaloosa County is required to make clothes cleaning and decontamination facilities available. Any employee with gross contamination of their uniform will notify dispatch and their Shift Commander immediately. Once the employee has been properly decontaminated, they may then return to duty. Contaminated uniforms should be double bagged and dropped off at the Logistics office for cleaning.

 3. Respiratory: Respiratory exposure occurs when an employee shares a confined space with a patient who exhibits the signs of a transmittable respiratory infection and does not take proper universal precautions for whatever reason.
 - a. The Shift Commander to whom the exposure was reported will follow up with the Infection Control Officer for treatment of the exposed employee. All instructions must be followed to the letter. Exposed employees may be required to undergo medical testing and prophylactic treatment.
1. A post-accident drug screen is required when medical attention is sought for an exposure incident.

PROCEDURES FOR EVALUATION AND FOLLOW-UP OF EXPOSURE INCIDENTS

When an employee reports an exposure incident, he/she will immediately be offered a confidential medical evaluation and follow-up including the following elements:

1. Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;
2. Identification and documentation of the source individual unless identification is infeasible.

If the infectivity status of the source individual is unknown, the source individual's blood will be tested as soon as feasible after consent is obtained. If the source individual's blood is available, and law does not require the individual's consent, the blood shall be tested and the results documented. The exposed employee will be informed of the results of the source individual's testing.

The exposed employee will be offered post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service. The exposed employee will be offered counseling and medical evaluation of any reported illness.

The following information will be provided to the healthcare professional evaluating an employee after an exposure:

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1. A description of the exposed employee's duties as they relate to the exposure incident;
2. The documentation of the route(s) of exposure and circumstances under which exposure occurred;
3. Results of the source individual's blood testing, if available;
4. All medical records relevant to the appropriate treatment of the employee including vaccination status.

Okaloosa County Risk Management Office shall obtain a copy and a panel physician will provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation. The written opinion ***will be limited*** to the following information:

1. The employee has been informed of the results of the evaluation;
2. The employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation or treatment.

NOTE: All other findings shall remain confidential and shall not be included in the written report.

Employee Training

All employees will receive initial and annual training conducted by OCEMS at no cost to the employee during working hours on the epidemiology, symptoms, and transmission of blood borne pathogen diseases. This program will cover a number of blood borne diseases in addition to HIV and HBV such as Hepatitis C (HCV) and syphilis. Employee will also be provided a copy of the Infectious Control Manual, and will be required to watch a video on blood borne pathogens and PPE.

All personnel who are required to utilize respiratory PPE as will be provided with an initial medical evaluation, fit testing, and training per the OCEMS Respiratory Protection Program.

In addition, the training program covers, at a minimum, the following elements:

- A copy and explanation of the standard
- An explanation of our ICM 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 employer is required to provide for the employee following an exposure incident

Training will also be conducted when there is a change in an employee's responsibilities, procedures or work situation and when changes are made to the ECP.

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Accountability and Compliance:

1. All new hires will document all prior immunizations. It is the responsibility of OCEMS to provide for the initial immunizations as listed above. The employee is responsible for maintaining further immunizations and testing, with the exception to reference of on-the-job exposures.
2. On coming crews will report any problems noted with their station and/or ambulance to the EMS Shift Commander. This will include blood, vomit or other bodily fluids in the vehicle. Any sharps whether dirty or clean will need to be documented.
3. Quarterly, the EMS Command Staff and/or Logistics will perform unannounced unit inspections. Data collected regarding compliance and findings will be entered into a database called Infection Control.
4. Suspected and/or confirmed Exposures will be documented and EMS Shift Commander will be notified at the time of the exposure or ASAP. The Shift Commander will fill out required paper work and submit it to Risk Management.
5. The OCEMS Shift Training Officers will provide annual training on the epidemiology, symptoms, and transmission of blood borne pathogen diseases

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