

# LEON COUNTY E.M.S.

## Standard Operating Guideline

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Title: Personal Protective Equipment

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### I. GUIDELINE:

Leon County EMS will provide employees and trainees with the personal protective equipment (PPE) necessary to protect themselves from exposure to infectious diseases at no cost to the employee. The PPE must be worn as specified in the Personal Protective Equipment List. Employees are responsible for carrying their own PPE at all times while out of the ambulance. Additionally, LCEMS shall repair or replace any lost, stolen, or damaged Emergency Medical Services- issued PPE at no cost to the employee/trainee.

As part of the new employee Orientation/Training Program, all new employees must be required to demonstrate knowledge of the PPE's location and procedure for use. The on-duty crew members must be responsible for having their PPE with them in the quantities specified and in the location designated by this procedural guideline.

### II. PROCEDURE

#### 1. Equipment

PPE shall be carried aboard each emergency vehicle in a quantity sufficient to protect all crew members and anyone else (students, ride alongs, etc) on board the emergency vehicle. LCEMS shall maintain the following items in all emergency vehicles:

- Disposable Impervious Gowns
- Face mask/Eye Shield Combination Device
- Disposable Exam Gloves of various sizes
- Waterless Hand Sanitizer
- Bio-Hazard bags with Warning Labels
- Puncture Resistant Sharps Container
- Portable Puncture Resistant Sharps Container (in carry in equipment)
- Pair Protective Eyewear (Goggles)
- High Level Disinfectant Solution

#### 2. Compliance Monitoring

In such cases when circumstances preclude the use of PPE as outlined herein (danger to self/patient, or an impairment in the ability for the employee to provide timely care to the patient), the employee(s) shall document the incident in writing and submit the report to the Deputy Chief of Administration. This report will be required whether or not the employee perceives that an actual exposure occurred or not. The Deputy Chief of Administration shall review all such incidents on a case-by-case basis to determine the appropriateness of the employee's actions and if any change in procedures or policies should be considered. In the event that any employee is discovered to not have their PPE accounted for as stated previously, or any employee is observed not complying with any provision of this procedural guideline, the employee shall be subject to disciplinary action up to and including termination of employment.

### 3. Procedures For Preventing Exposure

#### Universal Precautions for ALL Patients

The following precautions are to be observed for **all** patients, both emergency and non-emergency. Since it is impossible to determine with 100% accuracy what the patient's infectious disease status is, all patients shall be assumed to be carriers of infectious diseases.

- Wear disposable latex exam or high-risk gloves prior to and during all patient interactions.
- Wear protective eyewear prior to and during all patient interactions where splashes of blood or other body fluids are likely to occur.
- Wear HEPA particulate respirator mask on all patient contacts where confirmed or suspected Tuberculosis infection is present. Note: Protective eyewear is always worn in conjunction with the HEPA mask.
- Apply a surgical (fiber) mask to all patients who have a productive cough who are not on oxygen by mask.
- Assure that the appropriate masks, gowns, goggles, and latex gloves are worn by all personnel assisting with patient care.
- Drivers are to remove and dispose of their gloves after loading the patient in the patient compartment but before entering the cab of the vehicle. Drivers are to re-glove with new gloves prior to unloading the patient from the ambulance.

- Wash hands and arms thoroughly using soap and water, or waterless hand wash if hand washing facilities are not immediately available, as soon as reasonably possible after removing latex gloves.
- 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.
- For employees; All open cuts, sores, or abraded skin must be covered with appropriate bandages, latex gloves, and/or the employee's uniform. If this is not possible or not practical, the employee shall not work in the field environment until the wound has healed or can be properly protected.
- At no time shall food, drinks, cosmetics, lip balm, contact lenses, etc., be permitted to be consumed or applied in the patient compartment. These items are permitted in the cab of the vehicle provided the pass through door/window is kept closed at all times when a patient(s) is/are in the patient compartment. Anytime food, drinks, cosmetics, lip balm, contact lenses, etc., are transported in the cab, they shall be handled in a reasonable manner to prevent contamination by keeping containers closed and covered. Any contamination of the cab shall require that the cab be decontaminated.

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

### 3. Vehicle & Equipment Sanitation

#### Equipment/Materials Processing

All equipment, supplies, or other materials used in direct contact with patients that are non-disposable and must be turned in for repairs or servicing (cardiac monitor/defibrillators, traction splints, etc.), shall be decontaminated as outlined below before being turned in. If any of the above mentioned items can not be decontaminated they shall be marked with a biohazard label indicating what area is contaminated and what needs repairs.

#### Trash Receptacles

Trash receptacles in the ambulance shall be emptied at the end of every call as outlined below. These receptacles shall be replaced daily or sooner if they become contaminated.

#### Hands-Free Cleanup

In the event any glass items shatter/break or sharps are discovered loose in the patient compartment, the glass fragments/sharps shall be collected up using pieces of cardboard or stiff paper so that the employee is not handling the item(s) directly in his/her hand. The glass fragments/sharps shall then be dropped in an appropriate receptacle without direct contact with the gloved/ungloved hand. This “hands-free” cleanup procedure shall be utilized whenever the potential exists for a cut or abrasion to occur to the employee’s glove/ungloved hand in a potentially contaminated environment.

#### Disposal of Contaminated Waste

Contaminated / biohazardous waste shall be disposed of in accordance with the LCEMS biohazardous waste management program.

#### Towels and Blankets

Cloth towels are provided by LCEMS to aid crews. But at no time are the towels to be used to clean up spills of contaminated or biohazardous materials. Paper towels are provided for this purpose and should be used exclusively to minimize the volume of contaminated materials that must be processed and decontaminated.

Linen (cloth) sheets are not provided by LCEMS and shall not be used on the ambulance stretcher at any time. Cloth blankets are provided by LCEMS for the patient’s comfort and should be replaced anytime the blanket becomes contaminated or it is reasonable to assume that the blanket is contaminated.

Blankets/towels contaminated with blood or body fluids, shall be double-bagged in biohazard bags and returned to Headquarters in the designated area in accordance with the Biohazardous Waste Management Program. Contaminated blankets and towels shall not be rinsed or sorted prior to depositing the item(s) in biohazard bags.

### Cleaning the Patient Compartment

#### Routine Cleaning

Employees shall wear disposable latex gloves when performing routine cleaning of the patient compartment. All horizontal surfaces in the patient compartment (shelves, bench, seat, ceiling, floor, etc.), shall be wiped with disinfectant solution at the beginning of each shift. This daily cleaning shall be documented on the daily checklist.

#### Post Call Cleaning

After transporting any patient, very thorough cleaning shall be carried out. At a minimum this cleaning shall include disposal of paper sheets, removal of all trash, removal of contaminated waste, and wipe down of the ambulance stretcher mattress and other non-disposable equipment that was in contact with the patient with a disinfectant solution. The paper sheets on the stretcher must be changed at the end of every call. Cleaning and disinfectant solutions, paper towels, and other materials must be disposed of as regular trash unless contaminated.

#### Decontamination

Employees shall wear disposable latex gloves and protective eyewear when performing decontamination cleaning. Regardless of the patient's infectious disease status, gross contamination (contaminants that can be seen with the naked eye or can be reasonably anticipated to be present), shall be removed to the fullest extent possible utilizing paper towels and then sprayed with the disinfectant solution. After the disinfectant solution has been on the surface for 10 minutes, the solution shall be wiped off. All disinfecting solutions, paper towels, and other materials utilized in decontaminating the patient compartment and non-disposable equipment shall be disposed of as infectious waste. This procedure shall apply for decontaminating non-disposable PPE items as well. Particulate respirator masks may be worn on one or more calls during a 24 hour shift by the same crewmember. The respirator is to be wiped off with disinfectant solution between patient contacts.

At the end of the shift, contaminated respirators are to be placed in biohazard bags and left for pick-up and disposal.

#### Terminal Cleaning

In the event that a patient has been in strict or respiratory isolation and is transported, specific cleaning procedures shall be initiated. The ambulance crew shall notify the on duty supervisor of the need for disinfection. Latex gloves are to be worn by all personnel engaged in terminal cleaning procedures. When there is potential for splashing of liquids, personnel are required to use protective eyewear.

Prior to initiating terminal cleaning procedures, the patient compartment will be aired for five (5) minutes. All contaminated equipment will be scrubbed clean with a detergent, rinsed with water, wiped off/rinsed with a disinfectant solution and allowed to air-dry. All stretcher parts and parts of the mattress that come in contact with the patient will be cleaned with disinfectant. All floors will be sponged or mopped with a detergent solution, then a disinfectant.

#### Disposition of Soiled Uniforms

All field employees are required to bring a second uniform (pants, shirt), with them to work. Impervious gowns should be worn whenever the employee anticipates encountering an environment where aerosolization of body fluids or splashing of blood is likely to occur. In the event that accidental soiling of the uniform with a patient's body fluids occurs, the uniform shall be removed immediately and double-bagged in biohazard bags (labeled with the crewmember's name), located in each vehicle. The contaminated uniform shall be turned in before the end of the shift for processing at no expense to the employee. The uniform shall be laundered appropriately for decontamination and will be returned to the employee.

### 4. Specific Isolation Guidelines

#### Strict Isolation

**Diseases:** Abscess (unknown etiology), draining wounds, major burns, Diphtheria, disseminated Herpes Simplex, Impetigo, Meningitis (unknown etiology), Pediculosis (lice), Pneumonic Plague, Pneumonia, Rabies, Rubella, Scabies, Smallpox, Chicken Pox, Shingles, etc.

**Precautions:** Gown (all persons in unit), gloves (all persons in unit), mask (all persons in unit), and protective eyewear. Hands must be washed after touching the patient or potentially contaminated articles and before

taking care of another patient. Articles contaminated with infective material must be discarded or decontaminated. Patient compartment must be disinfected after the patient is removed.

#### Respiratory Isolation

**Diseases:** Epiglottitis, Measles, Meningitis (H, flu/Meningococcal), Mumps, Pertussis, Pneumonia, *Tuberculosis*, SARS, etc.

**Precautions:** Gloves (all persons in unit), HEPA particulate mask (all persons in unit), protective eyewear (all persons in unit), mask on patient if coughing, when possible. Hands must be washed after touching the patient or potentially contaminated articles and before taking care of another patient. Articles contaminated with infective material must be discarded or decontaminated. Patient compartment must be aired out five (5) minutes after patient is removed and any surfaces contaminated with infective material must be disinfected.

#### Blood and Body Fluid Precautions

**Diseases:** AIDS, HIV positive, Hepatitis-B, Hepatitis non-A/non-B, tick fever, Creutzfeldt-Jakob Disease, Malaria, Rat Bite Fever, Syphilis, etc.

**Precautions:** Gown (all persons in unit), gloves (all persons in unit), mask (only if possibility of the patient's blood or body fluids to be aerosolized or splashed), and protective eyewear. Hands must be washed after touching the patient or potentially contaminated articles and before taking care of another patient. Articles contaminated with infective material must be discarded or decontaminated. Patient compartment must be disinfected after patient is removed.

#### Drainage and Secretion Precautions

**Diseases:** Abscess (unknown etiology), draining wounds, major burns, skin infections, Anthrax, Cellulitis, Gangrene, Cytomegalovirus, Endometriosis, Herpes Simplex, Herpes Zoster, Bubonic Plague, Pneumonia, Scarlet Fever, Syphilis, Tuberculosis, Chicken Pox, etc.

**Precautions:** Gown (all persons having contact with patient or patient articles), gloves (all persons in unit), protective eyewear (all persons in unit). Hands must be washed after touching the patient or potentially contaminated articles and before taking care of another patient. Articles contaminated with infective material must be discarded or decontaminated. All surfaces contaminated with infective material must be disinfected after the patient is removed.

#### Enteric Precautions

**Diseases:** Amebic Dysentery, Cholera, Diarrhea, Encephalitis, Salmonella/Shigella Poisoning, Hepatitis-A, Viral Meningitis, Poliomyelitis, Typhoid Fever, Viral Pericarditis, etc.

**Precautions:** Gown (all persons having contact with patient or patient articles), gloves (all persons in unit), protective eyewear (all persons in unit). Hands must be washed after touching patient or potentially contaminated articles and before taking care of another patient. Articles contaminated with infective material must be discarded or decontaminated. All surfaces contaminated with infective material must be disinfected after the patient is removed.

## 5. Guidelines For Specific Medical Procedures

### Endotracheal Intubation / King Airway 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 Thoracostomy

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

### Mouth-to-Mouth Ventilation

**Employees should not perform direct mouth-to-mouth ventilation at any time.**

Other adjunctive devices such as pocket masks, bag-valve-mask devices, or demand valves should be utilized in lieu of making direct skin contact with patients with unknown infectious disease status.

### Mouth-to-Mask Ventilation

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

#### Intraosseous Insertion

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

#### 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, gowns, mask, and protective eyewear. When bleeding is controlled, only latex gloves are required.
- Personnel assisting with this procedure must wear gloves, gowns, mask, and protective eyewear. When bleeding is controlled, only latex gloves are required.

#### Bleeding Control with minimal bleeding

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

#### Cariopulmonary Resuscitation (CPR)

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

#### Administering Intramuscular (IM), Subcutaneous (SQ), and Sublingual (SL) Medications

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

#### Administering Nebulized Medications

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

#### Administering Intravenous Medications (IVP)

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

**REQUIRED PERSONAL PROTECTIVE EQUIPMENT**

Task / activity	Disposable Gloves	Gowns	Mask	Protective Eyewear
Bleeding control with spurting blood	YES	YES	YES	YES
Bleeding control with minimal bleeding	YES	NO	NO	NO
Emergency childbirth	YES	YES	YES	YES
Drawing blood	YES	NO	NO	NO
Starting an IV line	YES	NO	NO	NO
Endotracheal intubation King Airway use	YES	NO	NO, unless splashing likely	YES
Oral / nasal suctioning, manually cleaning airway	YES	NO	NO, unless splashing likely	YES
CPR	YES	NO	NO	NO
Needle Thoracostomy	YES	NO	NO, unless splashing likely	YES
Mouth-to-mask ventilation	YES	NO	NO, unless splashing likely	YES
Bag-valve-mask ventilation	YES	NO	NO, unless splashing likely	YES
Intraosseous	YES	NO	NO	NO
Giving medications IM/SQ/SL	YES	NO	NO	NO
IV medication administration	YES	NO	NO	NO
Nebulized medication administration	YES	NO	NO	NO
Handling and cleaning instruments with contamination	YES	NO, unless soiling likely	NO	NO

**NOTE:** The list above is the **required** PPE to use for each procedure listed. In no way, does the above listing restrict personnel from using any and all PPE that the employee deems appropriate.