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EAST BOISE COUNTY AMBULANCE
(EBCA)

INFECTION CONTROL STANDARD
OPERATING PROCEDURES

JULY 2007

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These Infection Control Standard Operating Procedures adopted on:

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POLICY TITLE:

Infection Control Terminology

PURPOSE:

To define terminology used throughout East Boise County Ambulance (EBCA) Infection Control Standard Operating Procedures.

DEFINITIONS:

EBCA—East Boise County Ambulance.

AIRBORNE PATHOGENS—Disease causing microorganisms passed through the air. Spread primarily through droplets expelled from the respiratory system as a result of cough or sneeze.

BACTERIA—Microorganisms that produce a disease in a host. They produce harmful toxins and can survive outside of a host organism.

BIOHAZARD MATERIAL—Items that have been contaminated with any type of human body fluid, waste, tissue, or blood. These items require special handling precautions.

BLOODBORNE PATHOGENS—Disease causing microorganisms present in human blood. Including Hepatitis B Virus (HBV), and Human Immunodeficiency Virus(HIV).

BODY FLUIDS—Any fluid produced by the body. Type of body fluids include blood, urine, feces, mucus, semen, vaginal secretions, breast milk, amniotic fluid, cerebrospinal fluid, synovial fluid, and pericardial fluid. All of these fluids have the potential to carry HBV, HIV or other types of pathogens.

BODY SUBSTANCE ISOLATION (BSI)—A method of exposure control used by medical personnel. In this form of exposure control, all body substances are treated as potentially infectious.

COMUNICABLE DISEASE—A disease that can be transmitted from one person to another, directly or indirectly.

CONTAMINATED—An item that has come into contact with body fluids. Possibly posing a threat to life, health or the environment.

DECONTAMINATION—A process by which the spread of contamination from persons and equipment is reduced or prevented.

DISEASE TRANSMISSION—Process of passing a disease from one person to another.

DISINFECTION—A process that inactivates virtually all pathogenic microorganisms, but not all microbial forms (ex. Bacterial endospores).

HIGH LEVEL DISINFECTION—Destroys all microorganisms except large numbers of bacterial spores.

INTERMEDIATE LEVEL DISINFECTION—Destroys tuberculosis, bacteria, vegetative bacteria, most viruses and fungi, but not bacterial spores.

LOW LEVEL DISINFECTION—Destroys most bacteria, some viruses, and fungi, but not tuberculosis bacteria or bacterial spores.

EMERGENCY MEDICAL CARE—Care rendered to a patient prior to arrival at a hospital or other health care facility.

EMT—Emergency Medical Technician.

ENVIRONMENTAL SURFACES—Surfaces surrounding patients not designed for intrusive contact with patient or mucous membranes.

EXPOSURE—Contact with an infectious agent through an open wound, non intact skin, or mucous membrane.

EXPOSURE CONTROL—See INFECTION CONTROL.

FLUID RESISTANT CLOTHING—Clothing that provides a barrier against splashing or spraying of body fluids.

GLOVES—

MEDICAL GLOVES—Gloves that are designed to provide a barrier against body fluids.

STRUCTURAL GLOVES—Gloves that meet the requirements for applicable regulations (ex. Firefighting gloves).

HBV—Hepatitis B Virus

HEALTH CARE WORKER—Person who works in the medical profession.

HIV—Human immunodeficiency virus.

IC—Infection Control.

ICO—Infection Control Officer.

IMMUNIZATION—Procedure rendering a person immune from certain diseases.

INDIRECT TRANSMISSION—Passage of disease from one person to another indirectly, without direct person to person contact. Indirect transmission occurs through the use of a medium.

INFECTION—Growth of pathogenic organism in the tissue of a host.

INFECTION CONTROL/ EXPOSURE CONTROL—Efforts designed to prevent infection from occurring in patient or health care worker.

INFECTION CONTROL OFFICER—Person responsible for coordinating efforts surrounding the investigation of an occupational exposure.

INFECTIOUS WASTE—Body fluids, contaminated sharps, and medical waste.

INVASIVE PROCEDURE—A procedure in which medical equipment or a part of the care providers person enters an otherwise sterile portion of the patient's body

LEAKPROOF BAGS—Bags that prevent tearing or breaking and can be sealed to prevent leaking.

MEDICAL WASTE—Items that have been contaminated with a potentially infectious material that are to be disposed of.

MUCOUS MEMBRANES—Moist layer of tissue lining mouth, eyes, nostrils, vagina, anus, and urethra.

NEEDLESTICK—Exposure to contaminated or non-contaminated needle.

NON-INTACT SKIN—A break in the skin's surface that offers organisms a direct route into the body.

OCCUPATIONAL EXPOSURE—A reasonably anticipated skin, eye, mucous membrane, or parenteral exposure to any potentially infectious material that may occur during the performance of a volunteer's duties.

PARENTERAL EXPOSURE—Exposure resulting from the piercing of the skin barrier.

PATHOGEN—Disease causing agent.

PERCUTANEOUS—Piercing skin with a sharp object.

PPE—Personal Protective Equipment.

REGULATED WASTE—Contaminated medical waste or biohazard waste subject to disposal standards as dictated by state or local regulations.

RESUSCITATION EQUIPMENT—Respiratory assist devices used to provide artificial respirations or assist in ventilation of a patient.

SHARPS—Any object that can penetrate the skin.

SHARPS CONTAINER—Containers designed to store sharp objects after use.

SOP's—Standard Operating Procedures.

SOURCE INDIVIDUAL—Any individual whose blood or other potentially infectious materials may be a source of occupational exposure to a health care worker.

SPLASH RESISTANT EYEWEAR—Devices that provide limited protection against splashes, spray, spatter, droplets, or aerosols or potentially infectious material.

STERILIZATION—A process of destroying all microorganisms in or about an object.

UNIVERSAL PRECAUTIONS—A method of exposure control in which all human blood and certain other body fluids are treated as if to be infectious. Used in a environment where the relative exposure risk of a fluid can be considered. See—BODY SUBSTNACE ISOLATION.

VIRUS—A microorganism that resides in a living host. Cannot reproduce outside of a living cell.

POLICY TITLE:

Infection Control Program.

PURPOSE:

To ensure the safety of responding personnel, patients, and responder's families and minimize the risks associated with emergency medical care through implantation of accepted infection control practices. To assist and encourage documentation of all possible exposure events and coordinate investigations of such events. To adopt and implement infection control practices as required by state and federal law. To keep abreast of changes in medical research and legislation governing infection control as applicable to emergency medicine.

POLICY STATEMENT:

EBCA shall appoint an Infection Control Officer (ICO) charged with implementing an effective infection control program, monitoring the program for efficacy, ensuring emergency medical service personnel understand and utilize infection control procedures, coordinating vaccinations as required by federal and state statute, and coordinating exposure investigations.

- 1) The purpose of the Infection Control Program is to avoid foreseeable transmission of communicable diseases to emergency medical personnel, their families, and patients contacted.
- 2) EBCA utilizes the principle of Body Substance Isolation for all patients.
- 3) All volunteers of EBCA will be required to be familiar with the Infection Control Policies of EBCA. Records regarding compliance with required education in Infection Control shall be kept for three (3) years from the training date. These records will be available to individual volunteers to review and copy at any time.
- 4) Volunteers will be requested to submit medical record information regarding immunization status, and testing for TB and HBV antibody level. All such medical information shall be kept strictly *confidential* and available only to the EBCA ICO, Unit ICO, Medical Director(s), and all subsequent parties only with written permission of the volunteer. The medical records shall be kept for the duration of volunteering plus three (3) years.

- 5) The EBCA ICO, with assistance from the Unit ICO shall be responsible for determining if the volunteer has been exposed to a communicable disease, coordinating medical treatment, and follow-up treatment as necessary.
- 6) Infection Control Standard Operating Procedures (SOPs) shall be developed and documented as the "EBCA Infection Control Standard Operation Procedures." These SOPs shall be reviewed periodically and updated as necessary.

POLICY TITLE:

EBCA Infection Control Officer (ICO)

RESPONSIBLE TO:

Medical Director(s)

JOB SUMMARY:

The EBCA Infection Control Officer (ICO) is responsible for the overall management of the EBCA Infection Control Program as it relates to all EBCA units and their volunteers. Areas of responsibility include the following areas: patient care, administrative duties, and educational/developmental needs.

PATIENT CARE:

- 1) Responsible to see that infection control policies as related to patient care are implemented, evaluated, and documented as necessary.
- 2) Has responsibility to monitor patient care standards for infection control.
- 3) Monitors compliance with infection control SOPs in all patient contact, especially concerning: TB, Meningitis, AIDS, and Hepatitis.

ADMINISTRATIVE AREAS:

- 1) Coordinating the collection of data with outside agencies for updating infection control protocols.
- 2) Assisting Unit ICOs with maintaining medical records relating directly to infection control for each volunteer.
- 3) Ensuring all volunteers involved in exposure events document the event properly, and maintaining records of the exposure events for each volunteer.

EDUCATIONAL/ DEVELOPMENTAL AREAS:

- 1) Responsible for providing continuing education to the Unit ICOs regarding infection control policies, procedures and blood borne pathogens.

POLICY TITLE:

Infection Control Continuing Education

PURPOSE:

To ensure compliance with infection control guidelines, and provide continuing education opportunities.

POLICY STATEMENT:

- 1) Infection Control Programs are offered to volunteers annually.
- 2) Infection Control study materials will be available through multiple media materials such as:
 - 2.1) Self study
 - 2.2) Formal Inservice
 - 2.3) Written Instruction
 - 2.4) Verbal Information
 - 2.5) Videotapes or other media routes
- 3) All new volunteers will receive instructions in Infection Control from their Unit ICO.
- 3) All volunteers will be educated immediately in the case of any updated information concerning infection control.

POLICY TITLE:
Volunteer Needle stick Protocol

PURPOSE:
To provide guidelines for volunteers who have been punctured with a contaminated needle.

POLICY STATEMENT:

- 1) Immediately after each incident, the volunteer will:
 - 1.1. Notify his/her Unit President or Infection Control Officer
 - 1.2. Report to the ER to be evaluated by the ER physician.
 - 1.2.1. The volunteer needs to be aware that a needle stick is a work related injury and needs to be reported as such to the ER.
- 2) Treatment:
 - 2.1. Treatment will be based on the treating hospitals protocols that are currently in place.
 - 2.2. Should the volunteer choose not to follow the treatment as recommended by the ER physician, the volunteer shall sign a release form stating that he/she refuses treatment and has been informed of the risks involved.
 - 2.2.1. Refusal form will be forwarded to EBCA ICO with telephone notification within 24 hours. (See page 11 for Refusal form)

EBCA Refusal of Treatment

This is to certify that I, _____
(Print Full Name)

have refused the advice and treatment of the attending physician.

I acknowledge that I have been informed of the risk involved
and hereby release the attending doctor, hospital, and EBCA from all
responsibility for any ill effects which may result.

Date

Signature of EBCA volunteer

Witness

POLICY TITLE:

Hand washing

PURPOSE:

To aid in the prevention of transmission of communicable diseases between volunteers and patients.

POLICY STATEMENT:

- 1) Antimicrobial hand washing products should be used frequently throughout the shift if soap and water is unavailable.
- 2) Volunteers should wash hands:
 - 2.1. After each call or contact with patient.
 - 2.2. After cleaning and disinfecting equipment.
 - 2.3. After cleaning the ambulance interior.
 - 2.4. Before storing cleaned and disinfected equipment.
 - 2.5. After any cleaning function.
 - 2.6. Before and after performing any personal body function, such as eating, blowing or wiping nose, and using the restroom.
 - 2.7. Before and after handling food or utensils.
 - 2.8. Before and after cooking
- 3) Hands should be washed vigorously for at least 15 seconds with an antimicrobial soap, followed by thorough rinsing.
- 4) The use of gloves does not remove the necessity of thorough hand washing.
- 4) The use of commercially available antiseptic gel, or wipe is acceptable for use after patient care activities when running water and soap are not readily available. Hands should be cleansed according to manufacturers instructions, followed by standard hand washing as soon as practical.

POLICY TITLE:

Body Substance Isolation and Body Fluids

PURPOSE:

The unpredictable nature of emergency medicine makes it impossible for responders to distinguish between infectious and non-infectious body fluids. Therefore, it is imperative that all body fluids be considered as potentially infectious, and that necessary precautions be taken with all patients. Every patient contacted by EBCA will be treated employing the principle of Body Substance Isolation (BSI).

POLICY STATEMENT:

- 1) Assume all body fluids of all patients are contaminated and potentially infectious.
- 2) All volunteers are responsible for following the precautions set forth in these protocols.
- 3) All personnel who have patient contact must be educated in and adhere to the principle of BSI..
- 4) General guidelines—In applying BSI, the responder should consider on-scene infection control procedures according to available dispatch information, put on personal protective equipment (PPE) while en route to scene, if desired, carry additional PPE to scene.
- 5) Volunteers with non-intact skin should dress wounds prior to patient contact and ensure dressings are intact throughout shift. If areas of non-intact skin are not coverable, responders should refrain from direct patient care and handling patient care equipment until condition resolves.
- 6) Wash hands after patient contact even though gloves are utilized.
- 7) Masks and goggles, or a face shield—mask combination, should be worn around any patient who is coughing, vomiting, or actively bleeding and for any situation where body fluids such as blood, pus, urine, feces, amniotic fluid, and saliva, may potentially contact mucous membranes.
- 8) Wear a gown whenever clothing might become contaminated with body fluids.
- 9) Following patient care, all linens soiled with body fluids will be double bagged in biohazard bags until appropriate cleaning facilities or services are available.
- 10) Gloves, masks, gowns, goggles, and plastic bags are available for use during the care of each patient.
- 11) Hand washing after patient contact is the single most effective and important means of infection control. Hand washing is mandatory even when gloves are used.

POLICY TITLE:

Personal Protective Equipment (PPE) Necessary for Medical Procedures.

PURPOSE:

To provide guidelines for volunteers performing routine medical procedures in the field.

POLICY STATEMENT:

- 1) The following chart outlines the PPE required for various procedures utilized in pre-hospital care.

PERSONAL EQUIPMENT FOR PROTECTION AGAINST TRANSMISSION OF HIV AND HEPATITIS B VIRUS

ACTIVITY	GLOVES	GOWN	MASK	PROTECTIVE EYEWEAR
Bleeding Control (Spurting Blood)	YES	YES	YES	YES
Bleeding Control (Minimal Blood)	YES	NO	NO	NO
Emergency Childbirth	YES	YES	YES	YES
Oral or Nasal Suctioning	YES	NO	NO	YES
Cleaning Equipment	YES	NO	NO	YES
Measuring Vital Signs	YES	NO	NO	NO
Cleaning back of Ambulance	YES	NO	NO	NO

- 2) PPE shall be provided by EBCA and available to all volunteers. EBCA strongly advocates judicious utilization of PPE, but it is the ultimate responsibility of the responder to determine what PPE is necessary and to comply with the SOPs.
- 3) Masks and goggles, or face shield-mask combination should be worn anytime there is a reasonable expectation of body fluid exposure to mouth, nose, and eyes through droplets, or splashes.
- 4) Gowns will be used when there is the potential for exposure to large amounts of body fluids, or when clothing is likely to be soiled by body fluids.
- 5) Disposable resuscitation equipment will be utilized by volunteers in all cases where resuscitation is necessary, this equipment should be nearby at all times so that direct mouth-to-mouth resuscitation is only done as a last resort.
- 6) All variances from the established protocols for usage of PPE should be documented in the run report and in an exposure report form. (See page 23-24 for Exposure Report form.)

POLICY TITLE:

Collection and Disposal of Medical Waste

PURPOSE:

Standardizing cleanup and disposal of waste in order to protect the safety of responders and the public.

POLICY STATEMENT:

- 1) Any waste generated at emergency scene shall be considered regulated waste and has the potential of spreading communicable disease. All regulated waste should be handled while wearing the necessary PPE.
- 2) Any waste that may been exposed to patient body fluids will be treated as regulated waste. When in doubt treat waste as regulated waste.
- 3) Regulated waste includes items known or suspected to have come in contact with blood, body fluids, or tissue. Examples include, but are not limited to:
 - 3.1. Contaminated disposable medical supplies and equipment.
 - 3.2. Contaminated disposable PPE.
 - 3.3. Liquid waste, including blood and other body fluids.
 - 3.4. Extensively bloody or soiled linens or equipment.
- 4) Regulated waste should be placed in leak proof bags labeled with biohazard labels or biohazard tape. Biohazard labels and biohazard tape should be fluorescent orange or orange-red with lettering and symbols in a contrasting color.
- 5) Bags containing regulated waste should be stored on the ambulance and secured in an upright position away from clean equipment and linens until they can be disposed of at a medical facility. St. Alphonsus' RMC and St. Luke's RMC have both agreed to take our medical waste in their soiled utility rooms.
- 6) Bags that may potentially leak, should be placed in another biohazard bag ("double bagged").
- 7) Disposable equipment and PPE will never be reused, but disposed of as regulated waste.
- 8) Body fluids should be soaked up with paper towels, rags, or alternatively with a commercially available product. The items used for soaking up body fluids will be disposed of as regulated waste.
- 9) Some reusable products such as linens may become so contaminated that disinfection is impractical, such items should be disposed of as regulated waste.