RC Health Services EMS Academy Infection Control Plan

Policy

It is the policy of RC Health Services EMS Academy:

- To regard all patient contacts as potentially infectious.
- To assure that each EMS Student will observe Standard and Universal Precautions when dealing with the public. Body Substance Isolation (BSI) will be employed as necessary to manage body fluids and other potentially infectious material.
- To ensure the EMS Student has the necessary training/access and testing of personal protective equipment (PPE) needed for protection from communicable disease.
- To regard all medical information as confidential.
- EMS Students must maintain an up-to-date vaccination status for preventable diseases as recommended by the Center of Disease Control (CDC) guidelines throughout the clinical and field internship.
- To ensure post exposure procedures be followed.
- To ensure proper decontamination/cleaning of the ambulance.
- To ensure proper decontamination/cleaning of the equipment; and
- To ensure proper disposal of equipment and supplies.
- To encourage the student to obtain personal health insurance prior to the start of class and during the entire length of their Clinical and Field Internship.

Scope

All RCHS EMS Students who provide or assist with patient transport and patient care while at their assigned Clinical and Field Internships. All EMS Students will follow this procedure as well as procedures stated in the RCHS Clinical Guidelines Manual. This document is to be used in conjunction with the RCHS Clinical Guidelines Manual.

Purpose

EMS Students perform their duties in unpredictable situations with an increased potential for exposure to infectious disease. It is the purpose of this plan to provide a guideline, when adhered to, offers an effective means to reduce the risk of exposure for the EMS Student and the patient alike. Precautions outlined in this plan are intended to assist the EMS Student in the delivery of safe care for each patient encountered and to evaluate and report possible exposure to communicable disease as prescribed by the appropriate State Regulatory Agencies. EMS Students will follow the direction of their assigned preceptor.

For the purposes of this document, EMS Student refers to the actual student, or RCHS EMS Academy Faculty and Personnel, unless otherwise stated. The Clinical Coordinator can also refer to other Faculty in the absence of the Clinical Coordinator.

The Clinical Coordinator is also the designated Infection Control Officer. The Infection Control Officer will have appropriate training to satisfy the requirements.

Prevention and Control of Infection

The use of Standard Precautions and BSI are industries best practices to minimize the risk of exposure and transmission of a given infectious disease. These practices are defined in the following sections and are adapted for use in Emergency Medical Services. All body substances should be treated as if they are potentially infectious and personal protective equipment should be utilized as required by the situation to prevent transmission. EMS Students shall notify their

assigned Clinical Preceptor of any latex allergies upon arrival. Under no circumstance, will the student perform mouth-to-mouth or mouth-to-tube ventilations.

Exposure Risk Reduction

Utilization of Standard Precautions, anticipation of the risk of exposure and appropriate use of Personal Protective Equipment (PPE) are the most important measures to decrease the risk of exposure. Frequent handwashing and use of an alcohol-based hand sanitizer, before and after patient contact, will be completed by each EMS Student when feasible.

Each EMS Student will maintain a current status for vaccine preventable diseases.

Personal Protective Equipment

EMS Students will be equipped with or have ready access to the following Personal Protective Equipment (PPE): non-latex gloves, shielded-face masks, safety goggles and/or ANSI Z87.1 or equivalent safety glasses, disposable sleeves or gowns, surgical masks and N-95 respirator or equivalent when available. The clinical site will primarily be responsible for providing this equipment. If not, the student will provide. Equipment and supplies designated by the manufacturer as single use or disposable will not be reused and must be disposed of unless current CDC guidelines state otherwise.

Modes of Transmission

Transmission of infectious disease can be reasonably anticipated during the administration of prehospital care and patient transport. Modes of transmission include:

- Direct/Indirect Contact transmission occurs when an infectious disease is spread through direct skin-to-skin contact with an infected person or through touching objects that have been in contact with the infected person.
- Airborne transmission occurs when a person breathes in very small respiratory particles that become airborne when an infected person coughs, sneezes, sings or talks.
- Droplet transmission takes place when respiratory droplets carrying infectious pathogens transmit infection when they travel directly from the respiratory tract of the infectious individual to susceptible mucosal surfaces of the recipient, generally over short distances (3 feet or less). Droplets are generated when the infected person coughs, sneezes, talks or sings. Procedures such as suctioning, endotracheal intubation, and cardiopulmonary resuscitation (CPR) also produce respiratory droplets.
- Vector borne transmission occurs via a bite from an infected insect or animal.

Standard Precautions

Standard precautions include adherence to each of the following components:

- **Hand Hygiene**: The single most important intervention employed to prevent infection is hand hygiene. Hands should be washed with soap and water when visibly soiled if possible. Alcohol gel and or wipes are acceptable if hands are not visibly soiled. Hand hygiene should be completed before and after every patient contact regardless of the use of gloves.
- **Respiratory Etiquette** includes coughing/sneezing into one's sleeve, covering the mouth/nose with a tissue and prompt disposal of used tissues, placing a surgical mask on a patient with a respiratory illness and hand hygiene after contact with respiratory secretions.

- **Gloves** should be utilized if contact with blood or body fluids or contaminated items such as linen or surfaces are anticipated.
- **Gowns** should be worn to protect clothing if the EMS Student anticipates exposure to blood or body fluids during the provision of care or when contact precautions are needed.
- **Mask/Goggles** (face mask with shield or surgical mask with goggles) should be utilized during procedures that may generate respiratory secretions or create splash of blood or body fluids
- **Sharps** – Activate the safety feature & disposed of in puncture proof containers. **DO NOT BEND, BREAK OR RECAP NEEDLES**.
- **Linens** are considered contaminated and should be removed & bagged while wearing gloves. Supplies that are grossly contaminated with blood should be placed in a Bio/hazard bag and disposed of at the hospital according to the hospital policy. Daily used sheets will be returned to headquarters and secured in blue bags for linen exchange program.
- **Open Areas in Skin** – Cover with an appropriate dressing prior to assignment. Dressings should be changed as necessary during the shift.
- **DO NOT RESPOND IF SICK**. If an EMS Student has a fever, if they have been on antibiotics for less than 48 hours for a communicable disease or if they have open wounds or draining lesions that cannot be completely covered/contained by a dressing they should not report for service. This practice prevents peers and patients from exposure to said illness.

Transmission-Based Precautions

In addition to Standard Precautions, Transmission-Based Precautions are used for all patients with specific diseases or pathogens to contain highly transmissible and/or epidemiologically important agents and are based on the mode of transmission of the specific pathogen.

Transmission-based Precautions include Contact, Droplet and Airborne or may include a combination of these based on transmission mode.

Contact Precautions are used for diseases transmitted by contact with the patient or the patient's environment.

- Personal Protective Equipment (PPE): Gloves should be worn during all interactions involving contact with the patient or the patient's environment. Gowns should be worn during transport of patient who has been on isolation precautions at other healthcare facilities and has infectious disease transmitted through direct contact. Don PPE upon entry to the patient's home and discard before leaving the delivery location, unless otherwise directed.
- Patient Transport: Cover or contain potentially infectious body fluids or wounds before transport.
- Environmental Measures: All surfaces touched by the patient or EMS Student must be disinfected after transport. A general disinfectant is used for most situations. Meticulous environmental cleaning and use of products with a C-difficile inactivation label claim combined with strict hand hygiene and appropriate laundry practices are recommended to decrease transmission of C-difficile.

Droplet Precautions prevent transmission of diseases caused by large respiratory droplets (larger than 3 microns in size).

- Personal Protective Equipment: A surgical mask should be worn. Handle items contaminated with respiratory secretions (e.g., tissues, handkerchiefs) with gloves. Change PPE between patients if possible, depending on current CDC Guidelines If the patient is unable to control secretions, a gown may also be necessary.
- Patient Transport: The patient should wear a surgical mask and follow respiratory hygiene and cough etiquette during transport. Once the patient is masked, the EMS Student should wear a surgical mask and will always follow the direction of the Clinical Preceptor, unless imminent harm.
- Environmental Measures: Disinfection of all surfaces touched by the patient or within 6 feet of the patient is required. A general disinfectant is used for most situations.

Airborne Precautions are used to prevent transmission of infectious organisms that remain suspended in the air for long periods of time (small particle residue [5 microns or smaller in size] of droplets) and may travel great distances.

- Personal Protective Equipment: Appropriate respirators include N-95 mask or equivalent, ANSI Z87.1 or equivalent eye protection or face shields, gowns, and gloves.
- Patient Transport: During transport, place a surgical mask on the patient and instruct him/her to observe respiratory hygiene and cough etiquette. Cover patient skin lesions with clean bandages and/or clean linens (if applicable). EMS Students should wear respiratory protection during transport if the patient is masked and skin lesions are covered. If the EMS Student encounter contaminated surfaces – gown and glove. The EMS Student will always follow the recommendation of the assigned Clinical Preceptor.
- Environmental Measures: Routine cleaning is standard. After transport, the unit should remain unoccupied with doors and windows open to allow for complete air exchange to occur.

Personal Restrictions: Restrict susceptible healthcare workers from transporting patients known or suspected to have measles (rubeola), chickenpox or disseminated zoster (varicella zoster virus), and smallpox if other immune healthcare workers are available.

Post Exposure Procedures

Post exposure is defined as: if a RCHS EMS Student has a parenteral (needle stick/cut) or mucous membrane exposure to another person's bodily fluids, including blood, or has an exposure involving significant amounts of blood or body fluid or prolonged contact with blood or body fluids (especially in non-intact skin conditions), especially during clinical or field rotations.

All injuries and reportable exposures must be reported to and will be handled by the Clinical Coordinator. The EMS Student shall also report the incident to their Clinical Preceptor and follow the Clinical and Field Internship Site Exposure Procedures. The EMS Student should submit a written report to and arrange a conference with the Clinical Coordinator and their Lead Instructor at their earliest convenience. The exposure report shall be written and submitted within 48 hours of the incident. The Clinical Coordinator will then advise the Education Committee and the Lead Instructor of the incident. Evaluation reports of the preceptor and/or the affiliate site should be consistent with said written report. The Clinical Coordinator or Faculty may be at clinical sites or attending other off campus business during office hours. Should you have an issue that arises or a question, contact your Clinical Coordinator.

Important: Do not wait to report an exposure incident!

Clothes that become soiled with body fluids or otherwise hazardous exposures should be removed and thoroughly cleaned as soon as possible. Students may wish to bring alternate uniform/clothes to wear should theirs become soiled. It is at the discretion of the affiliate to allow the student to wash the student uniform at the site and/or to continue the shift while the student's uniform is being washed. If a pull over type shirt should become soiled with potentially infectious material, the shirt should not be pulled over the face but instead cut away from the person and disposed of in a biohazard receptacle.

Patients to whom you are exposed are frequently discharged or otherwise unreachable soon after the exposure. Delay of reporting the incident may limit the extent of investigation and testing of the individual to whom you were exposed. The Program will take no disciplinary action against the student in cases of exposure unless your gross negligence has put others at risk.

Exposure Protocol:

In case of documentable exposure, the student should take the following steps in order:

1. Take action to lessen the severity of the exposure and decrease risks of further exposure and/or the exposure of others.
2. Clean the exposed part of your body in a manner consistent with universal precautions training.
3. Notify the clinical preceptor immediately after or during the cleaning process. Do not delay washing to find the appropriate authority to notify. Proceed with the affiliate's Exposure Protocol and RCHS Exposure Control Protocol.
4. Call the Clinical Coordinator.
5. Follow-up with the affiliate's infection control contact person to obtain the patient's status of HIV, HBV (HBSAB), RPR, and VDRL.
6. Do not leave the clinical site until you have spoken with a supervisory representative from the affiliate and the Clinical Coordinator.
7. Turn in a Clinical Incident Report form with Clinical Exposure Form to the Clinical Coordinator within 24 hours, or if a weekend shift, Monday morning.
8. Follow-up with your personal physician as soon as possible.
9. If the patient is positive for any communicable disease(s), baseline laboratory work-up and prophylactic immunizations are strongly recommended. The student may be financially responsible for any testing.

Discuss with your designated physician your exposure situation. This should take place soon after the exposure. Follow your physician's recommendation for treatment, testing, and behavior modifications. Be sure to have your physician contact the receiving physician or facility to request testing of the patient. Remember that all information is confidential. Complete all paperwork requested by the Clinical Site and RCHS to ensure compliance with reporting.

Before returning to your work site or home make, sure that you have decontaminated yourself and your clothing to assure that no cross contamination occurs.

If the responder's clothing or skin have become contaminated request the following when arriving at the hospital:

1. To be allowed to take a shower.

2. A bio/hazard bag to place contaminated clothing & disposal if necessary; and

3. Scrubs or other clothing to be worn home.

DISPOSAL OF CONTAMINATED EQUIPMENT AND SUPPLIES:

1. Contaminated equipment, clothing and supplies will be double bagged in a biohazard bag and left with the receiving hospital for disposal.

2. All general supplies used in cleaning the ambulance or equipment that has not been exposed to blood or air contamination may be placed in the trash container or poured into the drainage system.

ALL CONTAMINATED EQUIPMENT, CLOTHING OR BEDDING WILL BE DISPOSED OF BY THE RECEIVING HOSPITAL OR CLINICAL INTERNSHIP SITE. THE DISPOSAL OF CONTAMINATEDSUPPLIES WILL BE DONE ACCORDING TO THE RECEIVING HOSPITAL'S AND CLINICAL SITE POLICY.

References

OSHA Standards and Regulations Relating to Bloodborne Pathogens/Respiratory Protection

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Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of

Infectious Agents in Healthcare Settings

http://www.cdc.gov/ncidod/dhqp/pdf/isolation2007.pdf

Infection Prevention and Control: Best practices Manual for Land Ambulance Paramedics

Emergency Health Services Branch-Ontario Ministry of Health and Long-Term Care March 2007

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http://www.ambulancetransition.com/pdf_documents/infection_prevention_&_control_best_practices_manual.pdf