I. PURPOSE

To provide guidance in Standard Precautions, Management of Biohazardous Waste, Sterilization, and Disinfection

II. DEFINITIONS

A. High-level Disinfection

A procedure that kills vegetative organisms and viruses, but not necessarily large numbers of bacterial spores. Devices that contact mucous membranes must be sterilized or receive high-level disinfection before use. Chemical germicides that are registered with the U.S. Environmental Protective Agency (EPA) as "sterilant" may be used either for sterilization or for high-level disinfection depending on contact time. Manufacturer's directions must be followed when using these products for disinfection.

B. Sterilization

A process by which all forms of microbial life including bacteria, viruses, spores, and fungi are destroyed. Instruments or devices that enter sterile tissue or the vascular system of any offender or through which blood flows, must be sterilized before initial use.

III. POLICY

It is the policy of North Carolina Department of Adult Correction (DAC) to maintain all worksites in a clean and sanitary condition and to follow all standard precautions.

There is a plan for the management of biohazardous waste and for the decontamination of medical and dental equipment. (5-ACI-6A-17)

A. Standard Precautions Procedure

All staff shall be aware that the most important function in handing potentially infected fluid and preventing spread of disease is proper hand hygiene.

1. Infection Control Equipment and Supplies – DAC will make appropriate personal protective equipment and supplies readily available to all employees who are at risk of occupational exposure.

2. Barriers – Strict adherence to standard precautions must be practiced to minimize the risk of exposure to blood and body fluids of all patients. All health care workers will routinely use appropriate barrier precautions to prevent exposure when contact with blood and body fluids of any patient is anticipated. The following are barriers and should be worn to reduce or prevent exposures to blood and body fluids:

    a) Gloves

        i. Gloves will be worn when it can be reasonably anticipated that contact may occur with blood, other potentially infections materials, mucous membranes, and non-intact skin. Gloves will be worn when performing procedures (including phlebotomy and starting IV's) and when handling or touching contaminated items or surfaces.

        ii. Disposable (single use) gloves such as surgical or examination gloves will be replaced as soon as feasible when contaminated or if torn, punctured, or when their ability to function as a barrier is compromised.

        iii. Gloves will be changed after contact with each patient or when performing procedures from one body site to another on the same patient.

        iv. Remove gloves and perform hand hygiene upon leaving the room. Gloves should be removed before touching environmental surfaces.

        v. Disposable (single use) gloves will not be washed or decontaminated for reuse.

        vi. Utility gloves may be decontaminated for reuse if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

    b) Masks, Eye Protection, and Face Shields

        i. Masks, eye protection, and face shields will be used whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated.

        ii. Prescription eyeglasses are not permissible to be used as eye protection unless equipped with side shields.

c) Gowns, Aprons, and Other Protective Body Clothing

i. Gowns, aprons, personal protective equipment, or other protective body clothing will be worn in potential occupational exposure situations. The type and characteristics of the protection or body clothing depends upon the task and degree of exposure anticipated.

ii. Appropriate protective clothing must prevent contamination of an employee's skin or clothing by blood or other potentially infectious materials.

iii. If an employee's garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) will be removed immediately or as soon as feasible.

iv. Surgical caps or hoods and/or shoe covers will be worn in instances where gross contamination can be reasonably anticipated (operating rooms, emergency rooms, etc.)

B. Health Care Equipment and Environment

1. Will be decontaminated with an appropriate disinfectant after completion of procedures, immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials.

2. At the beginning and end of each work shift.

3. Equipment potentially contaminated with blood or other potentially infectious materials will be checked routinely and decontaminated, if possible, prior to servicing or shipping.

4. If parts of the equipment cannot be decontaminated prior to servicing or repair, a BIOHAZARD tag/label stating additional information as to which parts of the equipment are contaminated must accompany the equipment.

5. All protective covering such as plastic wrap, aluminum foil, or imperviously backed absorbent paper used to cover equipment and environmental surfaces will be removed and replaced after each patient.

6. All bins, pails, cans, and similar receptacles intended for reuse which have reasonable likelihood for becoming contaminated with blood or other potentially infectious materials will be inspected and decontaminated on a regularly scheduled basis, and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

7. Broken glassware, which may be contaminated, will not be picked up directly with hands. Clean up will be by mechanical means, such as a brush and dustpan, tongs, or forceps, and placed in a rigid container (e.g., sharps container for disposal).

8. Reusable sharps that are contaminated with blood or other potentially infectious materials will be placed in an appropriately labeled container for cleaning.

9. The sharps will be removed using tongs or forceps. Employees shall not reach by hand into the container to remove contaminated sharps. If the sharps are in a basin covered with water/liquid, the solution should be drained from the basin before removing with tongs.

C. Cleaning and Decontaminating Spills of Blood or Other Body Fluids

1. Should be contained by covering with disposable towels or a dry liquid treatment system (absorbent powder) and then scooped or swept up with a brush and dustpan.

2. This should be placed in a Biohazard bag, closed, and placed in the medical waste container.

3. An EPA approved chemical germicide that is registered as a "hospital disinfectant" (e.g., quaternary ammonium compounds, any phenolic) may then be used at the recommended dilution to decontaminate the blood or body fluid spill. Gloves must be worn during the cleaning and decontaminating procedures.

D. Containment and Disposal of Contaminated Sharps

1. Will be discarded immediately or as soon as feasible in containers that are closed, puncture resistant, and leak proof on the sides and bottom.

2. Containers will be labeled with a BIOHAZARD label.

3. The contaminated sharps containers will be maintained upright throughout use, be routinely replaced, and not be allowed to overfill.

4. When removing containers of contaminated sharps from the area of use, the container will be closed immediately prior to removal to prevent spillage or protrusion of contents during handling, storage, or transporting.

5. In DOI facilities, contaminated sharps containers will be kept in a secure location placed as close as feasible to the patient care area and disposed of by a licensed vendor.

6. All health-care workers should take precautions to prevent injuries caused by sharp instruments or devices during and after procedures, when cleaning and disposing of sharp instruments after procedures.

7. To prevent needle stick injuries, needles should not be recapped, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated.

8. Hand hygiene should be maintained utilizing soap and water, anti-bacterial soap, or hand sanitizer.

9. Hand hygiene should be performed between all direct patient contact, after removal of gloves or after handling soiled or contaminated equipment. All skin surfaces must be sanitized immediately and thoroughly if contaminated with blood or other potentially infectious body fluids.

E. Emergency Resuscitation Equipment

1. To minimize the need for emergency mouth-to-mouth resuscitation, one-way valve CPR masks should be available in strategic locations in each facility.

2. Mouthpieces, resuscitation bags/masks or ventilation devices as appropriate are to be accessible in patient care areas.

F. Dermatitis

1. Health-care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care and from handling contaminated patient-care equipment until the condition resolves.

2. Personnel who have dermatitis or allergies associated with hand washing agents, gloves, or other products should request assistance from supervisor in resolving the problem.

G. Food and Drink

1. Eating, drinking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.

2. Food and drink will not be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or workbench tops where blood or other potentially infectious materials are present.

H. Regulated Waste

Regulated waste shall include:

1. Sharps
2. Bandages, gauze, and compresses
3. Disposable personal protective equipment that is soiled with blood or other suspect material.
4. Any material which contains suspect materials in liquid or semi-liquid form, which will release such material if compressed.
5. Any material which is caked with dried suspect material, which could release such material when handled.
6. Medical Waste
7. Blood and body fluids in individual containers in volumes greater than 20 ml.

8. Microbiological waste
9. Pathological waste
10. Management of Regulated Waste (General Regulated Waste)
11. Contaminated sharps shall be placed in a puncture resistant container.
12. Contaminated bandages, gauze, compresses, and soiled disposable personal protective equipment shall be placed in designated containers.

    a) The containers shall be closable, red, or clearly marked with the BIOHAZARD label and constructed to contain all contents and prevent leakage.

    b) The bag liners shall be closable and durable enough to prevent leakage or protrusion of contents during handling and removal from the workplace.

    c) Containers of blood or potentially infectious materials with less than 20 ml. may be placed in the general medical waste containers.

13. General medical waste shall be removed from the work area by persons wearing personal protective equipment and shall be handled with a minimum of agitation.

I. Management of Medical Waste

Containers of medical waste shall be stored in a secure location and removed from the workplace by a licensed vendor who is appropriately trained.

J. Contaminated Laundry

Contaminated laundry shall include any article of reusable clothing or cloth which; contains less than 20 ml of blood or potentially infectious material in liquid or semi-liquid form.

1. Contaminated laundry shall be handled only by persons wearing personal protective equipment and shall be handled as little as possible with a minimum of agitation to prevent gross microbial contamination of the air and of the persons handling the linen.

2. Contaminated laundry shall be bagged or containerized at the location of use and shall not be sorted or rinsed at the facility.

3. Contaminated laundry shall be placed in bags which meet the requirements of bags used of medical waste.

4. Contaminated laundry that is saturated in blood or potentially infectious materials shall be disposed of in the Medical Waste containers.

K. Sterilization and Disinfection

1. Medical devices or instruments that require sterilization or disinfection must be thoroughly cleaned before packaged for the sterilizer or exposure to the germicide.

2. The manufacturer's specifications for compatibility of the medical device with chemical germicides shall be followed.

3. Facilities that do not have an infirmary or high level of care shall not operate sterilizers in the medical area. These units shall perform only minor invasive procedures (incision and drainage of minor abscess, injections, etc.).

4. Procedure

    a) Facilities with medical areas that operate sterilizers shall follow the following procedures:

    b) Cleaning of Equipment and Instruments to be sterilized.

        i. Soiled equipment and instruments must be thoroughly cleaned before sterilization.

        ii. An enzymatic detergent should be used. Do not use disinfectant solution as this binds protein to the equipment.

        iii. There must be a designated area for cleaning and packaging instruments.

        iv. Counter tops where instruments are packaged must be kept clean and wiped down at least daily with an EPA registered germicidal solution.

    c) Packaging of Instruments for Sterilization

        i. Each package must be labeled with the date processed and must have a chemical indicator strip placed inside.

        ii. The package will be sealed with steam or ethylene oxide pressure sensitive tape as appropriate.

    d) Biological Monitoring of Sterilizers

        i. Sterilizers will be tested at least once a week with a biological indicator.

        ii. For steam sterilizers, Bacillus stearothermophilus, shall be used.

iii. For ethylene oxide (gas) sterilizers, B. atropheus (formerly known Bacillus subtilis), shall be used.

iv. If a positive biological indicator is detected the sterilizer shall not be used again until it has been repaired.

v. Any equipment or unused instruments processed since the last negative biological indicator test must be re-processed.

e) There must be staff at the facility assigned the responsibility of keeping detailed maintenance and monitoring records of the sterilizer. Sterile supplies must be stored in clean cabinets.

f) Expiration dates must be checked weekly. The shelf life of unopened or undamaged package sterile items are:

i. Double thickness muslin wrapped items are considered sterile for 30 days.

ii. Double thickness muslin wrapped items placed in plastic sealed dust covers are considered sterile for 12 months.

iii. Items sealed in plastic wrap are considered sterile for 12 months.

g) Preventive maintenance and performance verification records:

i. The staff member responsible for the maintenance log will ensure and document weekly cleaning of the sterilizer inside and out with a mild soap and water solution.

ii. Each load or item will be monitored by a chemical indicator strip.

iii. The sterilizer will be monitored at least weekly using the appropriate biological monitor.

iv. A record of the biological monitoring will be kept where the sterilizer is maintained.

v. Repair and maintenance will also be recorded.

h) The responsible staff member will maintain a log that identifies each load and includes the exposure time, temperature, and identifies the operator by name.

i) Equipment that has been contaminated with blood or other body fluids must be decontaminated and cleaned before being repaired.

i. If part of the equipment cannot be decontaminated prior to servicing or shipping for repair, a BIOHAZARD tag must be attached listing which parts are contaminated,

and a memorandum prepared, listing the contaminated parts and why decontamination is not feasible.

ii. A copy of the memo must be provided to all employees, service representatives, manufacturers, or persons handling the equipment as appropriate.

j) Instruments or devices that enter sterile tissue or the vascular system of any patient or through which blood flows must be sterilized before reuse.

k) Devices or items that contact intact mucous membranes must be sterilized or receive high-level disinfection.

IV. REFERENCES

5th Edition Standards for Adult Correctional Institutions

5-ACI-6A-17

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