DENTAL SERVICES INFECTION CONTROL POLICY

A. POLICY:

The Infection Control Program will facilitate the safe admission of dental services for all inmates with a communicable disease and minimize the possibility of infectious transmission to other inmates or dental service personnel.

B. GOALS:

The Infection Control Program will accomplish the following:

1. Comply with the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard.

2. Ensure that a safe dental clinic environment is provided and maintained to minimize the possibility of infection/contamination.

3. Provide for review of dental service procedures and practices which directly or indirectly influence patient susceptibility to the spread of infectious agents.

4. Contribute to continuing employee education so as to orient all dental service personnel to the nature of infections and means by which infections may be prevented or controlled.

5. Utilize the three rules of infection control:

    a. Consider all patients infectious.
    b. Assume all blood, body fluids, and tissue are contaminated.
    c. Assume all used needles or other sharps are contaminated.

C. DEFINITIONS:

1. **Biomedical Waste:** Any solid or liquid waste which may present a threat of infection to humans. This term includes, but is not limited to, nonliquid tissue and body parts from humans and other primates; laboratory and veterinary waste which contains human disease-causing agents; discarded sharps; blood, blood products, and body fluids from humans and other primates. The following are also included:

    a. Used absorbent materials saturated with blood, body fluids, or excretions/secretions contaminated with blood. Absorbent material includes items such as bandages, gauze, and sponges.

    b. Devices which retain visible blood adhering to inner surfaces after use and rinsing such as intravenous tubing, hemodialysis filters, and catheters.

c. Other contaminated solid waste materials which represent a significant risk of infection because they are generated in medical facilities which care for persons suffering from diseases requiring strict isolation criteria and listed by the current United States Department of Health and Human Services, Centers for Disease Control*, CDC Guideline for Isolation Precautions in Hospitals*.

d. For the purposes of this policy, all disposable items that are placed into the oral cavity are considered biomedical, i.e., gloves, gauze, cotton rolls, cotton pellets, and cotton swabs.

2. **Blood:** Human blood, human blood components, and products made from human blood.

3. **Bloodborne Pathogens:** Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

4. **Disinfectant:** An EPA-registered product that destroys microorganisms on inanimate objects by physical or chemical needs. This product is to be tuberculocidal/virucidal in use dilutions or an equivalent fresh solution of sodium hypochlorite (liquid bleach) containing 100 parts per million available free chlorine.

5. **Contaminated Laundry:** Laundry which has been soiled with blood or other potentially infectious materials or laundry that may contain sharps.

6. **Contaminated Sharps:** Any contaminated object that can penetrate the skin or cause physical injury to health care or housekeeping personnel, including, but not limited to, needles, scalpels, broken or unbroken glassware containing or contaminated with potentially infectious fluids, dental burs, endodontic files, exposed ends of dental wires, intact or broken anesthetic carpules, and metal matrix bands.

7. **Decontamination:** The use of physical or chemical means to remove, inactivate or destroy pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

8. **Engineering Controls:** Controls (e.g., sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

9. **Exposure Incident:** A specific eye, mouth, other mucous membrane, nonintact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

10. **HBV:** Hepatitis B Virus

11. **HIV:** Human Immunodeficiency Virus

12. **Occupational exposure** means reasonably anticipated skin, eye, other mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

13. **Other Potentially Infectious Materials (as defined by the Occupational Safety and Health Administration [OSHA] include):** semen, vaginal secretions, cerebrospinal fluids, synovial fluid, pleural fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. Also included are any unfixed tissue or organs (other than intact skin) from a human (living or dead); and HIV-containing cell or tissue cultures, organ cultures, and HIV or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

14. **Potentially Contaminated:** The presence or the reasonably anticipated presence of blood of body fluids or other potentially infectious materials on an item or surface. Potentially contaminated waste is to be disposed in lidded trash receptacles.

D. CONTROL METHODS:

1. **Universal Precautions:** A method of infection control in which all human blood and other potentially infectious materials are treated as if known to be infectious for HIV and HBV. Universal precautions apply to blood, fluid visibly contaminated with blood, vaginal secretions, fluids from inside the body, and tissue from inside the body. Current Occupational Safety and Health Administration (OSHA) definitions indicate universal precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine, or vomitus unless the secretions, fluids, etc., contain visible blood. Other isolation precautions may apply to other body fluids. Universal precautions will be practiced at all Department of Corrections dental clinics.

2. **Engineering Controls:** Controls that isolate or remove the bloodborne pathogens hazard from the workplace. These controls will be examined and maintained or replaced on a regularly scheduled basis to ensure effectiveness. The following will be utilized (includes but not limited to):

    a. Clearly marked, closable, splatter-proof, puncture-resistant sharps containers.
    b. Foot-operated controls to open biomedical (biohazardous) waste containers.
    c. Provisions to operate the dental chair without contamination of switches. All new dental chairs will include foot controls. On older dental chairs with manual controls, proper draping will be utilized.

3. **Personal Protective Equipment (PPE):** Protective equipment for eyes, face, head, and extremities, protective shields, and barriers which shall be provided, used, and maintained in a sanitary and reliable condition. All of the above will be of a safe design and construction for work to be performed. The Department of Corrections mandates that gloves, surgical masks, and protective eyewear or chin-length plastic

face shields are required during dental treatment. All personal protective equipment will be provided for the Dental Assistant, the Dental Hygienist and the Dentist by the Department of Corrections. (NOTE: Any disposable personal protective equipment that is visibly soiled will be disposed as biomedical waste.)

a. **Gloves** will be of an appropriate material and of an appropriate quality for the procedures to be performed by the employees. Gloves will not be washed for use between inmate patients or reused. Gloves will be discarded in the biomedical waste. If the integrity of the glove or gloves is compromised either before or during procedure, the glove(s) will be discarded into the biomedical waste. If compromised during the procedure, the employee (after disposing of glove/gloves as stated above) will then immediately wash their hands with germicidal soap and reglove to continue procedure. After routine removal of gloves, hands will be washed with germicidal soap immediately and before regloving to attend to the next patient.

b. **Gowns** shall be fluid-proof disposable gowns and will be discarded as potentially contaminated waste (not biomedical) after completion of patient treatment except when visibly soiled.

c. **Masks** shall be earloop, elastic strap, and tie-type disposable masks. These must be used for dental patient procedures and then discarded as potentially contaminated waste (not biomedical) when visibly soiled.

d. **Eye Protection**—Safety glasses and disposable face shields shall be provided. Some form of eye protection (i.e., safety glasses, face shield or combination thereof) must be used during inmate dental treatment when the risk of exposure is reasonably anticipated. Eye protection must be disinfected after use. Responsibility is that of the dental assistant. NOTE: Safety glasses or face shields must have solid (not perforated) side shields.

e. **Head and shoe covers** shall be disposable head and shoe covers (optional). These will be discarded as potentially contaminated waste (not contaminated) except when visibly soiled.

f. **Surgical scrubs** (top and bottom) are recommended to be worn by each dentist, dental hygienist and dental assistant.

g. **Eyewash Station**—Each dental clinic is to have an eyewash station for quick drenching or flushing of the eyes. An eyewash station sticker must be placed above the eyewash station. All dental staff must have documented yearly training in the location and operation of the eyewash station.

4. **Work Practice Controls** will take into consideration alterations in which certain tasks are performed in an effort to reduce the likelihood of an employee's exposure to blood or other potentially infectious materials.

a. **Dental Service Staff** (Dentist, Dental Hygienist, and Dental Assistant)

(1) Dentist, Dental Hygienist, and Dental Assistant will wear gloves and masks. The wearing of safety glasses and/or face shields is required when the risk of exposure is reasonably anticipated. It is suggested that a disposable gown or arm sleeves be utilized when performing the following dental procedures: prophylaxis, cavitron, operative or surgery. Disposable gowns worn during patient care must be changed immediately or as soon as feasible if penetrated by blood or other potentially infectious material, including saliva. In most offices, changing at the end of the workday (or earlier if gowns are visibly soiled) should be adequate. Head covers and shoe covers are optional. Gowns used as personal protective equipment will be removed after patient contact and placed in an appropriately designated area or container for storage, washing, decontamination, or disposal. Hands will be washed with germicidal soap after removal of all PPE (gloves being removed last). Responsibility is that of the Dentist, Dental Hygienist, and the Dental Assistant.

(2) Inmate records (dental chart, medical chart, radiographs, etc.) will be handled both before glove placement and after glove removal. X-rays shall be placed in the view box prior to beginning dental treatment. When the Dentist and Dental Assistant are gloved there will be no direct contact with patient records. Responsibility is that of the Dentist and the Dental Assistant.

(3) It is recommended that a preprocedure rinse be utilized when invasive procedures are planned. An ADA approved antimicrobial rinse (lowers viable aerosolized bacteria for approximately 45 minutes) or Chlorhexidine Gluconate mouth rinse (has been shown to kill HIV after a 30-second contact) should be utilized.

(4) Whenever possible, in operative procedures, it is recommended that rubber dam isolation be used to minimize contact with oral and tissue fluids.

(5) Protective funnel shield or acceptable alternative for local anesthetic needle recapping. Never bend, break, or manipulate used needles.

(6) If possible, patients with an acute upper respiratory infection (URI) should be cancelled and reappointed after symptoms subside.

b. **Criteria For Dental Operatory:** Operatory, instrument preparation.

(1) Using thick utility gloves, all instruments are to be cleaned thoroughly either by placing the instruments in an ultrasonic cleaner with a

manufacturer recommended cleaning solution or by scrubbing with soap (or a detergent) and water, bagged, taped, expiration date affixed, and autoclaved. The ultrasonic cleaner is the preferred method as it reduces exposure risks and aerosols. The ultrasonic cleaning solution should be treated as contaminated and discarded as needed.

(a) If an instrument cannot be autoclaved, it will be placed in an acceptable cold sterilizing solution for the recommended time to ensure sterilization. The instrument will be removed and rinsed with sterile water. This instrument will then be bagged and the expiration date affixed no longer than three months later. (An exception is that of dental burs.)

(b) Burs are to be sterilized; then replaced in the bur block. NOTE: Burs used for surgical procedures will be discarded in the Sharps Biomedical container after completion of treatment. Responsibility is that of the Dental Assistant.

(2) High-speed hand pieces are to be flushed for 20 to 30 seconds after dismissing the patient. All high-speed hand pieces and slow-speed attachments (straight nose cone, contra-angle, prophy-angle and contra-angle adaptor) will be thoroughly cleaned, lubricated in accordance with manufacturer directions, bagged, taped, expiration date affixed, and then autoclaved. The slow-speed motor is to be disinfected. Responsibility is that of the Dental Assistant.

The slow-speed motor is to be covered with a disposable sleeve.

(3) All instruments if not used within a 365-day time frame are to be reautoclaved. Temperature sensitive indicators (test strips, tape or bags) will be run with each autoclave load. Biological cultures (control and test cultures) will be done on a weekly basis to ensure efficacy; a log shall be maintained documenting the results. Responsibility is that of the Dental Assistant.

(4) The cold sterilizing solution (CSS) will be an accepted glutaraldehyde solution. The containers holding the cold sterilant must be lidded. The container must be labeled with an appropriate OSHA Hazardous Materials sticker and the corresponding MSDS sheet must be on file. After activation, dates will be placed on the appropriate CSS containers indicating date of activation and date of expiration.

(5) Disinfectants utilized will include one or more of the following:

(a) Chemical germicides that are approved for use as hospital disinfectants and are tuberculocidal/virucidal when used at recommended dilutions.

(b) Products registered by the EPA as being effective against HIV with an accepted HIV label.

(c) A solution of 5.25% sodium hypochlorite diluted between 1:10 and 1:100 with water.

The following will be wiped down and sprayed with one or more of the above disinfectants after each inmate contact: dental chair, mobile unit; chair delivery tray, light handles, x-ray handles and collimator, counter tops, high evacuation HVE and saliva ejector housing and holders (NOTE: HVE and saliva lines will be flushed with a disinfectant solution, and then flushed with plain water in designated containers located in operatory. This will be accomplished prior to disinfection of housing and holders), and air-water syringes. The above will be accomplished prior to draping/barrier placement. Responsibility is that of the Dental Assistant.

(d) Barrier Placement/Drapes: Appropriate drapes/ barriers for the procedure to be rendered will be placed: dental chair, chair delivery tray, light handles, x-ray unit (handles, collimator, exposure button), HVE and saliva housings, and air-water syringes. Drapes and/or wraps will be disposed as potentially contaminated waste (not biomedical) unless visibly contaminated. Responsibility is that of the Dental Assistant.

(e) Sharps: All sharps will be disposed in closable, puncture resistant, and splatter-proof containers located, as much as feasible, in point-of-use areas. Sharps containers, not red in color, shall be labeled with the phrase Biomedical Waste and have the international biohazardous waste symbol affixed. Sharp items include needles, scalpel blades, burs, metal matrix bands, intact or broken glass (anesthetic carpules), endodontic files, exposed ends of dental wires, etc. The sharps container will be disposed when it is 3/4 full. Responsibility is that of the Dental Assistant.

(f) Biomedical waste: All items that come into contact with blood, saliva, or any other previously defined biomedical materials will be disposed in the foot-operated biomedical waste container in the operatory. The biomedical waste container will be properly labeled Biohazardous (Biomedical) Waste and have the standard biohazard symbol affixed. Only red fluid-proof bags are to be used in these waste containers. Items that will be placed in the above are gloves, cotton rolls, gauze, extracted teeth, excised tissue, HVE/saliva ejectors,

other items covered with obvious blood. (See section titled Biomedical Waste Disposal.) Masks, gowns, head and shoe covers, paper towels and patient napkins are considered potentially contaminated (not biomedical), unless visibly soiled, and shall be placed in regular lidded waste containers. (See section titled Potentially Contaminated Waste Disposal.)

(g) Impressions (Responsibility is that of the Dentist):

(i) Impressions taken with polysulfide, polyether, or polyvinylsiloxane will be immersed in a glutaraldehyde solution for 15 minutes after removal of gross saliva under running water in sink. The sink will then be disinfected with an appropriate disinfectant.

(ii) Impressions taken with irreversible hydrocolloid will be immersed in a glutaraldehyde solution (Clinical Research Associates recommends Omnicide 28, manufactured by Cottrell, Ltd.) or a 1:10 diluted 5.25% sodium hypochlorite solution for 10 minutes after removal of gross saliva under running water in sink. The sink will then be disinfected with an appropriate disinfectant.

(h) Dental Models: All models will be disinfected before handling without gloves. Responsibility is that of the Dentist.

(i) Dental Appliances: Oral prosthetic appliances received from a dental laboratory must be washed with soap or a detergent and water, rinsed well, appropriately disinfected, and rinsed well again before the prosthetic appliance is placed in the inmate's mouth. When adjusting/repairing dental appliances that have been in the inmate's mouth, the following will be observed. After gross debridement, the appliance is placed in a glutaraldehyde solution for 15 minutes. All burs, stones, etc., will also be placed in the solution after adjustment for time necessary to allow sterilization. If pumicing is necessary, the appliance will be pumiced with a sterile pumice wheel. The appliance will be washed with liquid germicidal soap prior to reinsertion. The pumice will be rinsed out in the sink; then the sink and pumice pan will be disinfected with an appropriate disinfectant. The wheel will be washed, bagged, dated, and autoclaved. A sterile wheel will be used on each patient's appliance. During grinding and pumicing procedures, protective eyewear and face mask should be worn at all times. All prosthetic cases sent to a dental laboratory will be

disinfected and sealed in an impervious container (Nyclave) with the labeling Treat Bag as Infectious Material prior to shipment from the institution. Responsibility is that of the Dentist and the Dental Assistant.

(j) Dental X-rays: Sterile technique will be followed in retrieving the films for processing. When it is time to change the chemicals in the automatic processor, the developer and water will be disposed in the sink followed by disinfection of the sink with an appropriate disinfectant. The fixer will be placed in OSHA marked container for toxic waste for disposal. Cleaning of the transport mechanism with Formula 2000 will be done outside or in a well-ventilated area using the designated container. This chemical will also be disposed in the sink, followed by disinfection of sink with an appropriate disinfectant. Responsibility is that of the Dental Assistant.

E. HBV VACCINATION:

Dentists, Dental Hygienists and Dental Assistants will be vaccinated for HBV in accordance with HSB 15.03.09.

F. POSTEXPOSURE EVALUATION AND FOLLOW-UP:

All Department of Corrections dental personnel will follow guidelines as stated in the Exposure Control Plan included in the *Bloodborne Pathogens Exposure Control Plan*. Responsibility is that of the Senior Dentist, along with the Chief Health Officer.

G. INFECTIOUS WASTE DISPOSAL/TAGS, LABELS AND BAGS:

The responsibility of this function is that of the health services administrator at each institution. The health services administrator is also responsible for arranging the training of the staff who handle infectious waste, including inmates, and to ensure that the necessary precautions are taken.

These recommendations provide for segregation of the waste stream resulting from dental care operations into two components: contaminated and potentially contaminated.

Potentially contaminated waste may contain small amounts of saliva or gingival fluid which may contain small amounts of blood. As such, these items may present some risk of infection to health care workers in the occupational setting and, therefore, should receive appropriate handling to minimize worker exposure.

Examples of items which may be potentially contaminated (not visibly soiled) include, but are not limited to, disposable gowns, aprons, hair coverings, shoe coverings, disposable masks, and operatory drapes.

1. Potentially Contaminated Waste Disposal:

    a. Potentially contaminated waste shall be placed in heavy-gauge plastic bags.

    b. A red bag shall **not** be utilized for potentially contaminated waste. A nonuniversally color-coded bag is acceptable.

    c. Potentially contaminated waste bags shall be placed in a covered container.

    d. Construction of the container shall be of a type so as to be easily cleanable.

    e. Unless specifically labeled Biomedical (biohazardous), all waste containers in dental operatory areas shall be considered to contain potentially contaminated waste.

    f. Personnel handling potentially contaminated or biohazardous waste from dental operations will wear disposable gloves.

    g. Potentially contaminated waste bags will be sealed and treated as ordinary solid waste for final disposal.

    h. The interior and exterior of multiuse containers used for potentially contaminated waste bags will be cleaned and sanitized with a disinfectant each time a bag is removed.

    i. Dental personnel shall be trained on waste handling. All dental personnel permitted or authorized to handle potentially contaminated waste containers will be trained on waste handling procedures.

2. Biomedical Waste Disposal:

    a. Biomedical waste, except sharps, shall be packaged in impermeable, red polyethylene or polypropylene plastic bags, labeled with the international biohazard symbol which should be a minimum of six (6) inches in diameter.

    b. Biomedical waste bags shall be placed in a foot-operated, self-closing container constructed of smooth, easily cleanable materials.

    c. The outside of the container shall be labeled with the international biohazard symbol (minimum six [6] inches in diameter) and the wording Biohazard or Biohazardous Waste (biomedical).

    d. Biomedical waste bags will be sealed when full.

    e. Every time a biomedical waste bag is removed from a multiuse container, the interior and exterior of the multiuse container shall be cleaned and sanitized.

f. Bagged biomedical waste being prepared for off-site transport prior to final treatment or disposal shall be enclosed in a rigid-type container. This container(s) shall be located in an area away from general traffic flows and be accessible only to authorized personnel.

g. Sharps shall be placed in rigid, plastic, single-use containers located, as much as feasible, in point-of-use areas.

h. Sharps containers, not red in color, shall be labeled with the phrase Biohazardous Waste or Biomedical Waste and shall have the international biohazardous waste symbol affixed.

i. Dentists, oral surgeons, dental assistants, dental hygienists, and housekeeping personnel will be trained in biomedical waste handling procedures.

H. HOUSEKEEPING PRACTICES:

The responsibility of general work site cleanliness is that of the Dental Assistant. The Dental Assistant shall wear the necessary PPE during this process. On occasion the inmate helper may be asked to clean the operatory where blood and other potentially infectious material may be. This is to be accomplished with a solution of 5.25% sodium hypochlorite diluted to 1:10 with water under the direct supervision of the Dentist or Dental Assistant. The inmate helper will wear the necessary PPE. The responsibility of training the inmate helper in the above housekeeping function and proper precautions to be taken is that of the dentist. It is policy to have the operatory wet mopped daily with a disinfectant solution. This is accomplished by the inmate helper under direct supervision of the Dentist or shift officer.

I. TRAINING AND EDUCATION OF EMPLOYEES:

1. The training program must be done yearly and will encompass the following:

   a. All dental staff with exposure to blood and/or other potentially infectious materials will participate in a training and education program.

   b. Material appropriate in content and vocabulary to educational level, literacy, and language background of staff shall be used.

2. The training program will encompass the following items with documentation of such:

   a. An explanation of the Dental Services Infection Control Policy

   b. Explanation and review of the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard

3. General Explanation of the Epidemiology of Bloodborne Pathogens

    a. HIV
    b. Hepatitis B Virus (HBV)
    c. Hepatitis C Virus (HCV)

4. Modes of Transmission of Bloodborne Disease

5. Emergency Action Plan

6. Explanation of the Exposure Control Plan (ECP)

    a. Location
    b. Tasks with Possible Blood Exposure
    c. Personal Protective Equipment

7. Information on the HBV Vaccine, including its safety, and the benefits of being vaccinated.

8. Appropriate action if exposure to blood occurs

    a. Who to contact
    b. Forms to complete
    c. Postexposure follow-up

9. Explanation of the signs, labels, tags, and/or color coding used to denote hazardous materials

10. Inventory and Material Safety Data Sheets (MSDS)

    a. Location
    b. How to use them

11. First Aid

    a. Location of First Aid Kit
    b. Location and usage of O_2 and Resuscitation Equipment
    c. Eyewash station

12. Sharps Handling

J. TRAINING RECORDS:

Document training records to be kept in the dental clinic will include:

1. Identification and classification of employees at risk
2. Copy of each employee's job description

3. Education and training requirements
4. Copies of training materials
5. Personnel trained
6. Names of trainers
7. Remedial training