

COMMUNITY COLLEGE OF PHILADELPIA

Dental Hygiene Program Clinic and Laboratories

Exposure to Bloodborne Pathogens Control Plan

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I. PURPOSE

The purpose of this Dental Hygiene (DH) Exposure Bloodborne Pathogens Control Plan, in conjunction with other already existing College safety and health policies, is to provide a safe working environment that limits occupational exposure to blood and other potentially infectious materials in the DH clinic and laboratories (W1-24). All employees and students should be aware that any exposure to blood or other potentially infectious materials could result in disease and/or death, and therefore, employees and students should take all precautions identified in the plan.

II. COVERAGE

This Exposure Control Plan covers all employees and students who work in the DH clinic and laboratories and who could be “reasonably anticipated” as a result of performing their job duties and course requirements, and patients treated in the clinic, to face contact with blood or other potentially infectious materials.

COMPLIANCE WITH THIS PLAN IS MANDATORY

III. ACCESSIBILITY

A copy of the Exposure Control Plan will be available and accessible to all employees and students and may be found in the DH clinic and DH program office.

This Exposure Control Plan will also be available to the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH) of the U.S. Department of Health and Human Services.

IV. EXPOSURE DETERMINATION

1. DH Clinic/Laboratory Users with Exposure Risk

- 1) Clinic Instructors
- 2) Clinic Assistants
- 3) Students
- 4) Patients

2. Tasks in which there is potential exposure risk

- | | |
|--|----------|
| A. Examination/Treatment of Patients | 1, 3, 4* |
| B. Clean-up of treatment areas | 1, 2, 3 |
| C. Instrument Cleaning/Autoclaving | 1, 2, 3 |
| D. Handling/Disposing contaminated waste | 1, 2, 3 |
| E. Handling dental impressions/study casts/extracted teeth | 1, 3 |
| F. Patient Records | 1, 2, 3 |

*numbers refer to clinic/lab users listed in IV.1

3. The following protective personal equipment and engineering controls shall be used when performing the following tasks:
- A. Examination/Treatment of Patients -
gown, examination gloves, eye protection, mask, needle guards if needed, dispose of contaminated materials in biohazard containers.
 - B. Clean-up of Treatment Areas -
gown, heavy-duty gloves, eye protection, mask, disinfectant, germicidal detergent, biohazard containers.
 - C. Instrument Cleaning/Autoclaving/Cold Sterilization -
gown, heavy-duty gloves, eye protection, mask, chlorhexidine scrub, ultrasonic cleaner, ultrasonic solution, autoclave.
 - D. Handling/Disposing Contaminated Waste –
gown, heavy-duty gloves, eye protection, mask, biohazard containers.
 - E. Handling Dental Impressions/Study Casts/Extracted Teeth –
gown/lab coat, heavy-duty gloves, eye protection, mask, disinfectant, biohazard containers.
 - F. Patient Records
gown/lab coat, examination gloves.
- Students will supply their own gowns, lab coats, examination gloves, heavy duty gloves, eye protection and masks.
 - Disinfectant, germicidal detergent and disinfectant hand-soap are located under each sink in the clinic and laboratories.
 - Sharps containers are located in the dispensary window.
 - Biohazard containers are located in the cove outside the materials laboratory.

V. SCHEDULE AND METHOD OF IMPLIMENTATION OF EXPOSURE CONTROL PLAN

A. This plan will take effect immediately (October 1993) and update annually (8/2008).

B. Cleaning Schedule

Daily – for each Treatment Session

- 1) Swab counter tops, sinks, carts with disinfectant and let stand until dry before and after treatment.
- 2) Swab chairs with germicidal detergent and let stand until dry before and after treatment.
- 3) Wipe control buttons on chair, lights, units and x-ray units with disinfectant before and after treatment.
- 4) Attach contaminated materials bag on cart and dispose in biohazard container after treatment.
- 5) Cover mobile cart with news print, patient chair with disposable plastic, unit tray with autoclave wrap and control buttons/levers with barrier tape.
- 6) Run contaminated instruments through ultrasonic bath (lid must be used at all times) for 5 minutes, rinse, wrap/bag autoclavable instruments (non-autoclavable instruments will not be bagged, and place on autoclave cart for autoclaving/sterilization.
- 7) Scrub sinks at the end of treatment session before disinfectant swab.

Daily – when laboratories are in use

- 1) Scrub sinks with cleanser and swab with disinfectant.
- 2) Swab counter tops with disinfectant and let dry before and after use.
- 3) Swab mixing bowls and spatulas with disinfectant before and after use.
- 4) Swab trimmer wheels after use.
- 5) Cold sterilization solutions will be kept in closed containers
- 6) Place all non-autoclavable instruments/items in cold sterilization solution for 12 hours

Monthly – when laboratories are in use

- 1) Cold sterilization solutions will be changed monthly and recorded in logs.

All daily and monthly cleaning/cold sterilization procedures are the responsibility of the students and overseen by the clinical/laboratory faculty.

Daily – Autoclaving/ Sterilization

- 1) Autoclave all instruments, handpieces and engines.
- 2) Place all non-autoclavable instruments/items in cold sterilization solution for 12 hours.

Weekly – when clinic/laboratories are in use

- 1) Material and supply containers will be autoclaved.
- 2) Cold disinfectant/ sterilization solutions will be kept in closed containers.

Monthly – when clinic/laboratories are in use

- 1) Cold disinfectant/ sterilization solutions will be changed monthly and recorded in logs.
- 2) Spore testing will be done on autoclaves and recorded in logs.
- 3) Non-used instruments will be re-autoclaved.

All daily sterilization, weekly and monthly procedures are the responsibility of the clinic assistant.

VI. METHODS OF COMPLIANCE

Compliance requires the adoption of a variety of procedures to ascertain that all employees and students are provided the necessary education and protective measures to minimize risk. The methods to be utilized are:

- A. Universal Precautions/Infection – Control Practices for Dentistry
- B. Engineering Controls
- C. Work Practice Controls
- D. Personal Protective Equipment/Clothing
- E. Housekeeping

A. UNIVERSAL PRECAUTIONS / INFECTION– CONTROL PRACTICES FOR DENTISTRY

Universal Precautions and Recommended Infection-Control Practices for Dentistry shall be observed to prevent contact with blood or other potentially infectious materials. When ever it is difficult to determine the risks associated with potentially infectious materials, the materials shall be considered infectious.

Universal Precautions and Recommended Infection-Control Practices for Dentistry may be found in Appendix A.

B. ENGINEERING CONTROL

Engineering controls shall be used to eliminate or minimize employee and student exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

Engineering controls shall be consistent with the potential level of exposure anticipated. If the exposure potential is minimal and the likelihood of exposure is very low, less stringent personal protective equipment will be necessary.

1. HANDWASHING FACILITIES

Hand-washing facilities are located at each treatment operatory, instrument preparation area, dispensary and laboratory. Each hand-washing facility is supplied with a bacteriocidal scrub and paper towels.

Employees and students must wash their hands or other skin with bacteriocidal scrub and water, or flush mucous membranes with water immediately, or as soon as possible, following contact of such body areas with blood or other potentially infectious materials.

2. EYE WASH STATIONS

The sinks located at the instrument preparation area, dispensary and laboratories are equipped with a continual eye wash apparatus.

3. NEEDLES AND SHARPS DISPOSAL

All contaminated needles and sharps shall not be bent or removed from disposable holders. Shearing or breaking of contaminated needles is prohibited.

All contaminated needles and sharps be disposed of immediately, or as soon as possible, in a rigid walled receptacle designed and labeled for disposal of such equipment. The sharps containers are to be kept in the dispensary window during the clinic sessions as needed and stored refrigerated. The container must be kept upright throughout use and shall be disposed of in biohazard waste and replaced when three-quarters full.

When moving containers of contaminated sharps from the dispensary, the containers must be:

- closed immediately prior to removal or replacement.
- Placed in a secondary container if leakage is possible. The secondary container must be closable, leak-proof, and be red in color or have appropriate biohazard warning labels.

4. CONTROLLED ACCESS TO CLINIC/LABORATORY AREA (W1-24)

Free access to the DH Clinic/Laboratories will be limited to faculty and employees. Students may not enter the area without faculty member present. Patients may not enter the clinic without a dentist faculty member present. Housekeeping and maintenance personnel shall have access on an "as needed" basis.

5. PROTECTIVE COVERINGS

Protective coverings of adhesive film will be placed on control knobs and switches during use.

6. STORAGE CONTAINERS AND RECEPTACLES

Plastic bag receptacles for contaminated materials (except for sharps) shall be placed on each mobile cart. These bags shall be discarded in the biohazard container, located in the alcove outside the materials laboratory, at the end of each treatment session.

7. AMALGAM DISPOSAL

When amalgam disposal is required, lab produced or clinical, all scrap amalgam will be placed in the "Amalgam Waste" container. The "Amalgam Waste" container is located in the instrument preparation area. Scrap amalgam disposal will be managed by the clinical assistant.

8. **BIOHAZARD LABELS**
Warning labels, including the orange or orange-red biohazard symbol, are affixed to containers of regular waste and sharps containers. Contaminated laundry will be marked with an orange-red tag.

C. WORK PRACTICE CONTROLS

Work practice controls shall be used to eliminate or minimize employee and student exposure.

1. **EATING, DRINKING, SMOKING, APPLYING COSMETICS OR MEDICATIONS**
Eating, drinking, smoking, applying cosmetics or lip balm, handling contact lenses, or applying other body lotions in the DH clinic/laboratories is prohibited.
2. **PROCEDURES FOR MINIMIZING STICKS FROM NEEDLES AND SHARPES**
 - a) Needles will be resheathed using protective shields and will be done by the faculty member only using a one-person operator technique. No four-handed techniques will be employed.
 - b) Needles will not be bent or broken for disposal.
 - c) Needles and carpules will be disposed of in a rigid container designed for this purpose found in the dispensary window.
 - d) Sharps containers will be sealed and disposed of when container is three-quarters full.
3. **PROCEDURES FOR MINIMIZING DENTAL BIOAEROSOLS**
 - a) Wear appropriate PPE
 - b) Use high-volume suction when possible
 - c) Pour chemicals (swab) rather than spray
 - d) Avoid hand scrubbing of instruments
 - e) Use lids on ultrasonic cleaners & all other chemical containers
 - f) Minimize use of latex products
 - g) Use "powder free" examination gloves
 - h) Use a vacuum system during dust-producing laboratory procedures
 - i) Flush Dental Unit Water Lines into high-volume evacuator
4. **PROCEDURES FOR MINIMIZING BACTERIAL CONTAMINANTS IN DENTAL UNIT WATER LINES (DUWL)**
 - a) Flush water lines for 2 minutes at the beginning of each day and longer after weekends.
 - b) Discharge water & air for a minimum of 20-30 seconds after each patient, from any device connected to the dental water system that enters the patient's mouth (Center for Disease Control 2003).
 - c) Use and maintain the self-contained water reservoir system at each dental unit.
5. **PROCEDURES FOR MINIMIZING EXPOSURE TO INFECTIOUS AGENTS DURING EXPOSURE OF RADIOGRAPHS**
 - a) Wear proper PPE: glasses, mask, gloves, & gown.
 - b) Before Exposure
 - 1) Treatment Area: (wear household gloves) disinfect the control panel, x-ray machine, dental chair, lead apron; place barriers.
 - 2) Supplies & equipment: must be prepared before the patient is seated - film, film-holding devices, cotton roll, elastics, paper towel, disposable cup or envelope.
 - 3) Patient Preparation: must be performed prior to new donning of gloves, have patient remove prosthetics &/or jewelry, adjust chair & headrest, place lead apron
 - 4) Operator Prep: must be completed before exposure - wash hands, don new gloves, and prepare film holding devices.

- c) During Exposure
 - 1) Film-handling: after exposure - dry film w/ paper towel and place in disposable cup or envelope.
 - 2) Film-holding device: must be handled as follows - transfer device from work area to mouth and back to work area, never place devices on uncovered countertops
- d) After Exposure
 - 1) Before glove removal: dispose of all contaminated items, place devices in an area designated for contaminated instruments (take them back to the dental unit).
 - 2) After glove removal: wash hands, remove lead apron, walk patient back to the dental unit.
- e) Before Processing
 - 1) Set-up dark room: stir solutions & label film rack or check temperature of the automatic processor.
 - 2) Wash hands, don new gloves & over gloves.
 - 3) Lay out paper towel & have ready a plastic bag for contaminated film packets.
 - 4) Turn-off white light & turn-on safelight.
 - 5) Open each film & let the film drop on the towel, then place the empty film packet in the bag.
 - 5) After all films are removed from packets, remove over gloves and place them in the contaminated waste bag.
 - 6) If using a "day-light loader" open films in the loader.
- f) During Processing
 - 1) Handle films by touching outside edges only, to prevent artifacts on films.
 - 2) Use manual or automatic processing.
 - 3) When using the automatic processor you **must** remain at the processor until all of your films are processed and accounted for.
- g) After Processing
 - 1) If you have lost a film(s) you **must** inform an instructor immediately, so the film(s) may be retrieved.
 - 2) All films **must** be accounted for.
 - 3) Remove the contaminated waste bag and dispose of it in the biohazard waste container
 - 4) Disinfect any surface that has inadvertently been contaminated.

6. CONTAMINATED WASTE

Contaminated waste shall be handled using Universal Precautions and the appropriate personal protective clothing to minimize risks. Contaminated waste (not including sharps) shall be placed in the plastic bag receptacle connected to each cart. Upon completion of a treatment session the plastic bag shall be placed in the clearly marked biohazard receptacle in the alcove outside the materials laboratory. These bags shall not be placed with other material that do not pose the potential for contamination. Any contaminated waste that may leak or is a fluid shall be placed into a second labeled receptacle to protect against leaks during transport and handling.

7. CONTAMINATED GOWNS AND MASKS

Contaminated gowns and masks shall be discarded in the biohazard container, non-contaminated gowns and masks shall be discarded in the non-contaminated trash container, also in the alcove outside the materials laboratory.

D. PERSONAL PROTECTIVE EQUIPMENT/CLOTHING

College employees will be provided with impervious gowns, lab coats, eye protection, face shields, and gloves.

Students are required to purchase their own impervious gowns, lab coats, eye protection, face shields, and gloves.

1. USE AND CHANGING OF PERSONAL PROTECTIVE EQUIPMENT/ CLOTHING

As general guideline to the use and changing of personal protective equipment and clothing, the following standards shall apply:

- If protective equipment is penetrated by blood or other potentially infectious materials, the protective equipment shall be removed immediately, or as soon as possible, and replaced with a clean protective article.
- All personal protective equipment and clothing shall be removed prior to leaving the clinic area. When the personal protective equipment is removed it shall be placed in the appropriate container for disposal, contaminated in biohazard container and non-contaminated in non-contaminate trash container.
- Gloves should be worn when it can be reasonably anticipated that the hands may become exposed to blood or other potentially infectious materials, when handling or touching contaminated items or surfaces or cleaning such surfaces or items.
- Examination gloves will be worn for all intraoral procedures. The gloves will be covered with over-gloves before leaving the treatment operatory area. Gloves that become torn, punctured or if their ability to function as a barrier is compromised shall be disposed of as soon as possible. Disposable gloves shall not be washed or disinfected for reuse.
- Gloves shall be worn during the handling of alginate impressions, pouring of study casts and trimming of study casts.
- Hypoallergenic gloves, glove liners, powder-free gloves, or other similar alternatives are accessible to those employees who are allergic/sensitive to gloves normally provided.

2. GOWNS AND LAB COATS

Gowns, laboratory coats or other protective clothing shall be worn when ever the potential exists that work clothing, undergarments, skin, or other body surfaces may be exposed to blood or other potentially infectious materials. Safety clothing shall be sufficient to protect the wearer from exposure potential that exists.

3. EYE PTOTECTION, GOGGLES AND FACE SHEILDS

Eye covering with side shields must be worn during all patient treatment or when the potential for eye contamination by blood, saliva, or other potentially infectious materials. This contamination may occur as the result of splashing, aerosol, or other contact.

Face shields may be worn when the potential for exposure to blood or saliva is present through aerosol. Eye covering and face masks must be worn under the face shield.

E. HOUSEKEEPING

1. HANDLING CONTAMINATED WASTE

All materials that have the potential for contamination from blood or infectious materials shall be placed in the marked biohazard receptacle in the alcove outside the

materials laboratory. The biohazard receptacle will be disposed of by the appropriate outside bio-waste disposal contractor.

2. **EQUIPMENT/INSTRUMENTS CONTAMINATED WITH INFECTIOUS MATERIALS**
Equipment or instruments that are contaminated with blood, saliva or other potentially infectious material shall be disinfected or autoclaved after each treatment session. Any instrument, handpiece cones and engines, air/water syringe tips, beakers, or any other non-heat sensitive items will be autoclaved. Non-autoclavable items will be placed in cold sterilization for 12 hours. All equipment and surfaces will be disinfected with disinfectant or germicidal detergent.
Any instrument or equipment being serviced, shipped or removed from the clinic for repair will be autoclaved or disinfected prior to removal or shipment. Any part or component of equipment being shipped or removed for repair that can not be disinfected completely shall be labeled with a biohazard label indicating which part or parts have not been disinfected or remain contaminated.

VII. HEPATITIS B VACCINATION PROGRAM

All DH faculty and employees are encouraged to receive the Hepatitis B vaccine with the College reimbursing for the cost of the vaccinations. Documentation of vaccination shall be kept in the employee's file.

DH students are required to have the Hepatitis B vaccine or begin the series of inoculations prior to beginning the DH curriculum. Documentation of Hepatitis B vaccination shall be kept in the student's department file.

VIII. COMMUNICATION AND TRAINING OF HAZARDS TO EMPLOYEES

All employees shall receive a copy of this Exposure Control Plan and be updated annually on procedures.

IX. RECORDKEEPING

(See College Policies and Procedures Memorandum No. 308.in the back of this document)

A. MEDICAL RECORDS

Medical records for employees shall be kept for the duration of service to the College plus thirty (30) years.

B. TRAINING RECORDS

Training records shall be maintained for a period of three (3) years after date of training.

C. CUSTODY AND RETENTION OF RECORDS

The medical and training records created for the purpose of this plan shall be treated with confidentiality by the College with custody of said records to be determined by the College.

X. EVALUATION OF EXPOSURE INCIDENTS

(See College Bloodborne Pathogen Exposure Information Packet in the back of this document)

A. MEDICAL CONSULTATION AND EXAMINATION

In the event of an exposure, a "Clinical Incident Report" shall be filled out by the faculty member present. All procedures for a clinical incident shall be followed and a copy of the report shall be submitted to the College Nurse by the Department Head. Consultation, counseling and follow-up treatment shall be in accordance with the College Policies and Procedures Memorandum No. 308.

XI. REVIEW AND UPDATING OF EXPOSURE CONTROL PLAN

This plan must be reviewed and update at least annually during Fall inservice week.

COMMUNITY COLLEGE OF PHILADELPHIA

Operating Procedures for Exposure to Bloodborne Pathogens

Faculty, employees or students exposed to an infectious agent (blood, saliva or other infectious materials) must complete a “Clinical Incident Report”.

An exposure to would include incidents such as: a contaminated needle stick injury, puncture wound from a contaminated instrument, or contact with blood, saliva or other body fluid on non-intact skin or mucosal tissue.

Any faculty, staff or student exposed to an infectious agent on or off the CCP campus must adhere to the following policies and procedures. Any exposure experienced at an off-campus site must also be reported to that clinic site and managed according to its policies and procedures.

An exposure to an infectious agent will be managed according to the following procedures:

1. Wounds will be cleansed well with water and disinfectant soap, i.e. Chlorhexidine soap, immediately followed by cleansing with alcohol or iodine swabs and bandaged.
 - a. Students are to inform a faculty member immediately following an exposure.
 - b. Faculty and employees are to inform their supervisors immediately following an exposure.
2. Following initial treatment of the exposure site, the faculty member or supervisor will complete the attached “Clinical Incident Report”, make three (3) copies and return the original and copies to the Department Head of Allied Health.
3. The Department Head will submit the original Report to the Dean of Mathematics, Science and Health Careers, retain one copy for the personnel file or student’s file and keep a second in the departments files. The third copy will be given to the exposed party.
4. The Dean of Mathematics, Science and Health Careers will submit the original “Clinical Incident Report” to the College nurse’s office.
5. An appointment with the College Nurse must be made for clarification of the incident and probable recommendation for the exposed party to seek medical care, counseling and follow-up care. Medical follow-up care will be through the student’s private physician or for an employee follow the CCP “Work Related Injuries Procedures” .
6. Any patient being treated when an incident occurs (the source of the infectious agent) should be notified about the exposure. This is to be done by the College Nurse.