COMMUNITY COLLEGE OF PHILADELPHIA

Dental Hygiene Program
Clinic and Laboratories

Dental Hygiene
Hazard Exposure Control Plan
DH Hazard Exposure Control Plan  
Dental Hygiene Program Clinic and Laboratories

I. PURPOSE  
   a. The purpose of the Dental Hygiene (DH) Hazard Exposure 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 potentially hazardous materials in the DH clinic and laboratories (W1-24). All employees and students should be aware that any exposure to potentially hazardous materials could result in disease and/or death, and therefore, employees and students should take all precautions identified in the plan.

II. COVERAGE  
   a. The Hazard 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 potentially hazardous materials.  
   b. COMPLIANCE WITH THIS PLAN IS MANDATORY.

III. ACCESSIBILITY  
   a. A copy of the Hazard 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. It may also be found on CCP’s Dental Hygiene Program website.  
   b. This Hazard 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  
   a. DH Clinic/Laboratory Users with Exposure Risk  
      Clinic Instructors (1)  
      Clinic Assistants (2)  
      Students (3)  
      Patients (4)  
   
   b. Potential Hazards  
      Toxic Chemicals 1,2,3*  
      Latex Allergies 1,2,3,4  
      Radiation 1,3,4  
      Physical Strain and Injury 1,2,3  
   *numbers refer to clinic/lab users listed in IV.a.  
   c. The following protective personal equipment and engineering controls shall be used when handling or working in close proximity with the following:  
      Toxic Chemicals  
      1. Gown, heavy-duty gloves, eye protection, mask, dispose of toxic materials according to manufacturer’s recommendation.  
      Radiation  
      1. Lead apron (for patient), gown, examination gloves, eye protection, and mask.  
      Students will supply their own gowns, lab coats, examination gloves, heavy duty gloves, eye protection and masks.
V. IMPLEMENTATION OF HAZARD EXPOSURE CONTROL PLAN  
   a. This plan will take effect immediately (August 2014) and will be updated annually (August 2015).

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, and 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. Whenever it is difficult to determine the risks associated with potentially infectious materials, the materials shall be considered infectious.

   1. Universal Precautions and Recommended Infection Control Practices for Dentistry may be found in the Exposure to Bloodborne Pathogens Control Plan.

   b. ENGINEERING CONTROLS  
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 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  
   a. Hand-washing facilities are located at each treatment operatory, instrument preparation area, dispensary and laboratory. Each hand-washing facility is supplied with a bactericidal scrub and paper towels. In addition, a mounted alcohol-based container is located at the back of the clinic to remove or destroy transient microorganisms and reduce resident flora.

   Employees and students must wash their hands or other skin with bactericidal scrub and water, or flush mucous membranes with water immediately, or as soon as possible, following contact of such body areas with a toxic chemical.

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

   3. LABELING CHEMICAL CONTAINERS  
   a. Containers must be labeled to indicate chemical contents & any hazards that may be present. All chemicals in the dental hygiene clinic must be labeled to align with the Globally Harmonized System of Classification and Labeling of Chemicals. All secondary containers must be labeled: spray bottles,
ultrasonic tanks, automatic & manual processing tanks, chemical vapor sterilizers, cold sterilization tanks, etc.

4. AMALGAM DISPOSAL
   a. 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.

5. CONTROLLED ACCESS TO CLINIC/LABORATORY AREA (W1-24)
   a. Free access to the DH Clinic/Laboratories will be limited to faculty and employees. Students may not enter the area without a faculty member present. Housekeeping and maintenance personnel shall have access on an “as needed” basis.
   c. WORK PRACTICE CONTROLS
       Work practice controls shall be used to eliminate or minimize employee and student exposure.

EATING, DRINKING, SMOKING, APPLYING COSMETICS OR MEDICATIONS
   1. Eating, drinking, smoking, applying cosmetics or lip balm, handling contact lenses, or applying other body lotions in the DH clinic/laboratories is prohibited.

PROCEDURES FOR HANDLING MERCURY SPILLS
   1. A “Mercury Spill Kit” will be used for such spills and is kept in the dispensary area. The kit contains: mercury-absorbing powder, sponges, and disposal bag. Personal protective equipment must be worn.

DISPOSAL OF CHEMICALS
   1. Hazardous waste and/or empty container disposal follow the label and/or the Safety Data Sheet (SDS) instructions. Copies of the SDSs for all hazardous chemicals to which employees and students are exposed or potentially exposed are kept in the Dental Assistant’s Office area in the Dental Hygiene Clinic.

PROCEDURES FOR MINIMIZING EXPOSURE TO CHEMICAL HAZARDS
   1. Keep a minimum amount of hazardous chemicals in the clinic.
   2. Read labels and use only as directed.
   3. Store according to the manufacturer’s direction.
   4. Keep all containers tightly closed.
   5. Avoid mixing chemicals unless consequences are known.
   6. Wear appropriate PPE when handling hazardous materials.
   7. Wash hands immediately after removing gloves.
   8. Avoid skin contact w/hazardous chemicals. If exposed, wash the areas immediately.
   9. Avoid eye contact. If exposed, use eye-wash unit and seek medical treatment immediately.
  10. Maintain good ventilation.
  11. Do not eat, drink, smoke, apply lipstick, or insert contact lenses in areas (Clinic and/or Laboratories) in which chemicals are used or where known contaminants are present.
PROCEDURES FOR MINIMIZING EXPOSURE TO LATEX
1. Keep the use of latex-containing products in the clinic to a minimum.
2. Allow no direct contact with latex by an individual who is sensitive or allergic to latex: faculty, staff, student, or patient.
3. The latex-allergic should be scheduled early in the day.
4. The individual cleaning and preparing the dental unit must wear non-latex gloves and must wipe all surfaces to remove allergens.
5. Allow no latex at the dental unit and use only non-latex products for high risk patients.
6. Do not handle patient charts with latex gloves.
7. Ensure that no one who has worn latex that day enters the dental unit area during treatment of a latex-allergic patient.
8. Have emergency treatment equipment and drugs ready.
9. Inform faculty and staff of appointment.

PROCEDURES FOR MINIMIZING EXPOSURE TO RADIATION
1. Occupational Rules for Clinician Radiation Protection
   a. Never stand in the direct line of the primary beam.
   b. Always close and stand behind the lead lined radiology doors.
   c. Never stand closer than 6 feet from the x-ray unit during exposure; unless you are behind a lead barrier.
   d. Never hold the film for the patient, not even for the child patient.
2. Rules for Patient Protection
   a. All X-ray Equipment must be will-calibrated, properly installed, and properly maintained.
   b. Use the fastest speed dental film.
   c. Use film holding devices (XCP, Snap-Ray, and BW tabs) to reduce radiation exposure to the patient’s hands and fingers.
   d. Employ good film exposure techniques.
   e. Always use a Lead Apron w/Thyroid (Cervical) Collar for all patients during exposure of radiographs. Do not use a thyroid collar when exposing panoramic radiographs.
   f. The lead apron should cover the patient from the thyroid to the gonadal area.
   g. Never fold the lead apron. All aprons must be hung-up on hooks after use.
3. Equipment Monitoring
   a. Dental X-ray Machines must be monitored for leakage radiation.
   b. The Pennsylvania Department of Health performs a yearly inspection.

PROCEDURES FOR MINIMIZING EXPOSURE TO PHYSICAL STRAIN AND INJURY
1. Occupational Hazard
   a. Carpal Tunnel Syndrome: associated w/continued flexion and extension of the wrist.
   b. Shoulder & Neck Pain—strain or flexion of shoulder for more than 1 hour per day.
   c. Neck & Back Pain—extension or elevation of the arm for long periods of time.
d. Lower Back Pain—twisting of the body over an extended period of time.

2. Prevention of Injury
   a. The dental operatory must be modified for each specific person to best reduce strain and repetitious movements.
   b. Give the operator a “good range of motion.”
   c. Have all equipment at the appropriate level for the operator and assistants.
   d. Have all cabinets, instruments, and materials easily accessible.
   e. Employ “proper positioning & instrumentation techniques.”

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.

USE AND CHANGING OF PERSONAL PROTECTIVE EQUIPMENT/CLOTHING

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

1. If protective equipment is penetrated by potentially hazardous materials, the protective equipment shall be removed immediately, or as soon as possible, and replaced with a clean protective article.
2. 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 a biohazard container and non-contaminated in a non-contaminated trash container.
3. Gloves should be worn when it can be reasonably anticipated that the hands may become exposed to hazardous materials, when handling or touching contaminated items or surfaces or when cleaning such surfaces or items.
4. Examination gloves will be worn for all intraoral procedures. The gloves will be removed 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.
5. Gloves shall be worn during the handling of cold sterilization solution, radiographs, alginate impressions, pouring of study casts and trimming of study casts.
6. Hypoallergenic gloves, glove liners, powder-free gloves, or other similar alternatives are accessible to those employees who are allergic/sensitive to gloves normally provided.
7. Industrial gloves must be worn over nitrile examination gloves when placing and removing instruments from the ultrasonic bath at the end of the clinic session.

GOWNS AND LAB COATS
1. Gowns, laboratory coats, or other protective clothing shall be worn whenever the potential exists that work clothing, undergarments, skin, or other body surfaces may be exposed to hazardous materials. Safety
clothing shall be sufficient to protect the wearer from exposure potential that exists.

EYE PROTECTION, GOOGLEs, FACEMASKS, AND FACE SHIELDS

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

2. Facemasks must be worn for all patient treatment, during disinfecting and instrument cleaning procedures, when laboratory lathes and model trimmers are used, and during the handling of any contaminated laboratory materials.

3. Face shields may be worn when the potential for exposure to hazardous materials present through aerosol. Eye covering and face masks must be worn under the face shield. Face shields must be worn during the use of ultrasonic scalers or air-abrasive cleaning devices. Face shields must be disinfected after each use.

VII. COMMUNICATION AND TRAINING OF HAZARD EXPOSURE CONTROL PLAN TO EMPLOYEES

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

VIII. RECORDKEEPING

(See College Policies and Procedures Memorandum No. 313 listed on the College’s website).

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.

b. 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.

IX. EVALUATION OF EXPOSURE INCIDENTS

(See College Bloodborne Pathogen Exposure Information Packet in the back of this document. It is also listed on the College’s website: College Policies and Procedures Memorandum No. 308. ).

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.

X. REVIEW AND UPDATING OF HAZARD EXPOSURE CONTROL PLAN

a. This plan must be reviewed and updated at least annually during Fall In-service week.

b. Please note that the Hazard Communication Standard (HCS) is now aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Further information can be found on www.osha.gov/dsg/hazcom.