

# **INFECTION CONTROL & BLOOD-BORNE PATHOGENS**

## **INFECTION/HAZARD CONTROL POLICIES**

Reviewing the patient's medical history does not always shed light on their medical conditions. Some patients are unaware of their disease status or the mechanism of disease transmission. Other patients may choose to not fully disclose their medical conditions.

Standard Precautions is defined as a strategy to be used in patient care that assumes ALL body fluids from ALL patients be considered infectious and that ALL patients be treated with the same high standard of infection control practice. Dental hygiene students **MUST** utilize Standard Precautions to prevent contact with blood or other potentially infectious materials.

The dental hygienist has both a professional and legal obligation to render patient volunteer care utilizing the highest standards of infection control available. It is ultimately the responsibility of the individual providing care, whether it is student, faculty, or staff, to adhere to the health and safety protocols of the school during patient care. All students, faculty, and staff **MUST** make sure that care is rendered in a safe environment with appropriately processed and handled instruments and materials to minimize chances of contamination and subsequent disease transmission. This applies to not only clinical procedures but also to those procedures performed during radiology and dental materials lab.

### **Rationale for Manual**

The dental office environment places the dentist, dental hygienist and dental assistant at risk of contracting infectious diseases during the work day. Precautions must be taken to guard against transmission of disease. Precautions include (1) reducing the number of pathogens that are present to a safe amount, (2) protecting the health worker through the use of barriers and equipment, and (3) vaccination against specific organisms that may be present.

### **General Recommendations**

This written policy is written for all health care personnel in the HCC Dental Hygiene Program. The policies and procedures apply to all students, faculty, staff, and personnel. Please visit the HCC website for information regarding the HCC Exposure Control Plan.

### **Education & Training**

- New employees, faculty, staff, and students who work in the HCC Dental Hygiene Program must receive training immediately after hiring regarding exposure to potentially infectious agents. A copy of this manual must be provided to each new employee. Each new employee will receive training in infection control. It will be the responsibility of faculty to monitor, maintain, and assure compliance of the sterilization and infection control procedures set forth in this manual.
- Howard Community College specific Exposure Control Plan for Blood-borne Pathogens can be located through a link on the Howard Community College website/under dental hygiene program, or through the following link:

[http://www.howardcc.edu/students/department\\_of\\_public\\_safety/HCC%20Exposure%20Plan.pdf](http://www.howardcc.edu/students/department_of_public_safety/HCC%20Exposure%20Plan.pdf)

## **Education & Training New Students**

- Applicants are notified of the risk of exposure associated with dental hygiene career in the program application packet and at orientation sessions. Students are informed of vaccinations and health requirements for entry into the dental hygiene program. New students will receive initial training regarding exposure immediately upon entering the program. This will occur during the first two or three weeks of the start of classes and continue throughout the educational process.
- Students will receive training in specific procedures for infection control and the prevention of disease transmission in core dental hygiene courses.
- Competency evaluations will be given to students in early clinical courses to determine competency level.

## **EXPOSURE MANAGEMENT**

**Definition of blood-borne exposure:** a blood -borne exposure means having blood, blood contaminated saliva, or a blood contaminated instrument from one individual (source) come into contact with broken skin or mucous membranes of the eyes, mouth, of a second (injured person). The most common example is being “stuck” with a contaminated instrument or needle.

Policies and Procedures for Reporting, Evaluating, and Counseling Blood-borne Exposures: The following are directly taken from HCC Exposure Control Plan page 13. Again, students can visit the above HCC link for more information concerning the HCC Exposure Control Plan.

### **7.1 Exposure Incident**

Should an exposure incident occur, the first priority is the emergency medical treatment (such as clean the wound, flush eyes and mucous membranes, etc.) for the individual(s) exposed. Call Security immediately and if the situation warrants also call 911.

### **7.2 Employee or HCC Community Member Exposure**

If the event is an occupational exposure, employees have the opportunity to receive at no cost, an immediate confidential medical evaluation performed by a licensed health care practitioner. Associated testing will be performed by an accredited laboratory. An attempt will be made to contact the source individual to collect and test their blood for the presence of Hepatitis B and HIV.

If the event involves any other HCC community member, they are directed to contact a health care practitioner for treatment and follow up - this occurs at their own expense.

### **7.3 Required Notifications**

The following individuals should also be informed once the emergency phase of the incident is over:

- The individual responsible for the event
- Immediate supervisor or Division Chair (or their designee)
- For employees, Human Resources should also be notified
- For non-employees, Security will notify Risk Management Team

#### **7.4 Exposure Procedure Incident Card**

An exposure Procedure Incident Card will be given to the exposed individual at the time of exposure. The double-sided card contains information for care immediately following exposure and then posts incident follow-up instructions. A copy of the card is in the Attachment B.

Side 1 of card: Care following exposure (to be completed)

Side 2 of card: Body Fluid Exposure Incident Procedure

#### **7.5 Post-exposure evaluation and follow-up**

Post-exposure evaluation and follow-up will be performed by the Risk Management Team.

## **RECORD KEEPING OF EXPOSURES**

### **8.1 Exposure Record**

All exposure reports, sharps logs, and other records are kept confidential and must be kept on file five years following the exposure. No other information will be disclosed or reported without the written consent of the individual involved, except as may be required by law. Each confidential exposure record will include:

- The exposed individual's name and social security number
- A copy of the HCC incident report
- For employees, a copy of the incident report, Howard County Employee's Incident/Injury report and all test, exam, and follow-up procedures as provided by the treating medical facility
- For employees, a copy of the employee's Hepatitis B vaccination status, including dates and any records relative to the employee's ability to receive vaccination
- The employer's copy of the Health Care professional Written Opinion, a copy of which will be given to the exposed employee with 15 days of completion
- HCC non-employee records will be maintained in applicable department divisions or specific program areas for five years

### **8.2 Contaminated Sharps Injury Log**

A Sharps Injury Log pertains to all members of the HCC community, must be completed within fourteen days of exposure. This log will be maintained to record all percutaneous injuries from contaminated sharps. The information will be recorded in such a way as to protect the confidentiality of the injured individual. The log will be

maintained in applicable department divisions or specific program areas for five years.

### **8.3 Document Retention of Employee Exposure Records**

The Office of Human Resources will document any exposure incident in accordance with the Access to Employee Exposure and Medial Records, as found in the Code of Federal Regulations 1910.20. Records will be maintained in confidence by the Office of Human Resources for at least the duration of employment pus 30 years. These records include:

- The exposed individual's name and social security number
- A copy of the HCC incident report
- For employees, a copy of the incident report, Howard County Employee's Incident/Injury report and all test, exam, and follow-up procedures as provided by the treating medical facility
- For employees, a copy of the employee's Hepatitis B vaccination status, including dates and any records relative to the employee's ability to receive vaccination
- The employer's copy of the Health Care professional Written Opinion, a copy of which will be given to the exposed employee with 15 days of completion

## **EXPOSURE INCIDENT FORMS**

**The following forms are examples of forms that can be obtained from the HCC web link:**

1. Howard County Employee Incident/Injury Report
2. Howard Community College Dental Hygiene Program Sharps Injury Log

Students may obtain additional information on the HCC Exposure Control Plan from the HCC website by visiting the following

link: **[http://www.howardcc.edu/students/department\\_of\\_public\\_safety/HCC%20Exposure%20Plan.pdf](http://www.howardcc.edu/students/department_of_public_safety/HCC%20Exposure%20Plan.pdf)**

Location Code: \_\_\_\_\_

Claim No.: \_\_\_\_\_  
Risk Mgmt use only

### HOWARD COUNTY EMPLOYEE INCIDENT/INJURY REPORT

**Instructions:** This form must be completed immediately for all job-related injuries or infectious materials exposures. Please print and answer all questions completely. If you do not understand the questions or need help completing this form, ask your supervisor for assistance. After you have completed Section I, return the form to your supervisor; they will complete Section II.

Notice of employee injuries must be faxed to Risk Management (410-313-6399) within 24 hours. Do not delay notification if information is incomplete. Call Risk Management at once if injury is serious (410-313-6390).

**Section I - Employee Information:**

Dept.: \_\_\_\_\_ Job Title: \_\_\_\_\_

Full Name: \_\_\_\_\_ Social Security No: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_

Home Address: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Date of Incident: \_\_\_\_\_ Time of Incident: \_\_\_\_\_ am \_\_\_\_\_ pm

Location of Incident (be specific): \_\_\_\_\_

Describe in detail what happened, including what caused the incident: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Names of persons who witnessed the incident: (if not County employee, include address and phone number)

Name: \_\_\_\_\_ Dept: \_\_\_\_\_ Phone # \_\_\_\_\_

Name: \_\_\_\_\_ Dept: \_\_\_\_\_ Phone # \_\_\_\_\_

\_\_\_\_\_

Injured Part of Body? (List all that apply) \_\_\_\_\_

When did you report the incident? \_\_\_\_\_ Who did you report it to? \_\_\_\_\_

Did you seek medical treatment? \_\_\_\_\_ Where were you treated? \_\_\_\_\_

EMPLOYEE'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

This form is for Howard County internal use only; it does not constitute filing a claim with the Maryland Workers' Compensation Commission.

(Over)

DATE OF INJURY		<b>SHARPS INJURY LOG</b>
TIME OF INJURY		
<p><b>Instructions:</b> Complete this form within 14 days of an exposure incident that involves a sharp. An exposure incident is when an employee's eyes, mouth, non-intact skin or mucous membrane is exposed to another individual's blood or saliva. This log must be kept for five (5) years following the date of the exposure incident. Record the following information if known. Identity of the employee must be kept confidential.</p>		
Type of sharp:	<input type="checkbox"/> bur <input type="checkbox"/> syringe needle <input type="checkbox"/> ortho wire <input type="checkbox"/> endo files <input type="checkbox"/> unknown <input type="checkbox"/> blades <input type="checkbox"/> explorer <input type="checkbox"/> broken carpule <input type="checkbox"/> broken glass <input type="checkbox"/> scaler tips <input type="checkbox"/> knife <input type="checkbox"/> suture needle <input type="checkbox"/> other/specify: _____ <input type="checkbox"/> unknown	
Brand of sharp:	_____ <input type="checkbox"/> unknown	
Description of exposure incident	<input type="checkbox"/> intra orally <input type="checkbox"/> extra orally	
Job classification of injured employee	<input type="checkbox"/> dentist <input type="checkbox"/> hygienist <input type="checkbox"/> lab tech <input type="checkbox"/> assistant <input type="checkbox"/> other _____	
Department/work area where the incident took place	<input type="checkbox"/> operatory <input type="checkbox"/> unknown <input type="checkbox"/> laboratory <input type="checkbox"/> instrument processing room <input type="checkbox"/> other _____	
Procedure performed at time of injury	<input type="checkbox"/> cleaning sharp <input type="checkbox"/> placing sharp in sharps container <input type="checkbox"/> handling sharp during tray setup <input type="checkbox"/> handling sharp during patient treatment <input type="checkbox"/> giving injection <input type="checkbox"/> assembling/disassembling handpiece <input type="checkbox"/> unknown <input type="checkbox"/> other _____	
How did injury occur?	<input type="checkbox"/> failure of protective device or mechanism <input type="checkbox"/> lost control of sharp <input type="checkbox"/> sharp was not visible <input type="checkbox"/> inattention/distraction <input type="checkbox"/> inexperience w/device <input type="checkbox"/> in a rush <input type="checkbox"/> inexperience w/procedure <input type="checkbox"/> position of sharp on tray or cart <input type="checkbox"/> inflicted by a co-worker <input type="checkbox"/> location of tray or cart <input type="checkbox"/> other _____	
Body part exposed:	<input type="checkbox"/> finger/thumb <input type="checkbox"/> arm <input type="checkbox"/> other _____ <input type="checkbox"/> hand <input type="checkbox"/> face	
Did the sharp have a protective device or mechanism?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	
If yes, was the protective device or mechanism activated?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	
Did injury occur before, during or after protective device or mechanism was activated?	<input type="checkbox"/> Before <input type="checkbox"/> During <input type="checkbox"/> After <input type="checkbox"/> Unknown	
Injured employee's opinion: If there is no protective device or mechanism, would such a mechanism or device prevent injury?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Don't know	
Injured employee's opinion: what could have prevented injury?	_____	

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

The Occupational Safety and Health Administration consider personal Protective equipment (PPE) to be specialized clothing or equipment worn by an employee for protection against a hazard, such as patient blood and other body fluids. General work clothes are not intended to function as protection against a hazard and are not acceptable forms of PPE.

## Dental Professional PPE

The common PPE used by dental professionals include gloves, masks, protective eyewear, face shields, and clinic gowns. Additional information concerning PPE can be found on the Centers for Disease Control website [www.CDC.gov](http://www.CDC.gov).

Gloves	Utility Gloves	Masks	Protective Eyewear	Protective Clothing
<ul style="list-style-type: none"> <li>Glove type <b>MUST</b> match the hazard present</li> <li>Utility gloves are for transporting and cleaning soiled instruments</li> <li>Worn for patient care, instrument handling, environmental infection control</li> <li>Put on in the presence of the patient</li> <li>Are single-use only</li> <li>Put on after hand hygiene services have been performed</li> <li>Changed between patients or if punctured, ripped, or torn</li> <li>Removed and hands washed <b>BEFORE</b> leaving operatory</li> <li><b>DO NOT</b> touch mask, hands, face or hair with gloved hands</li> <li><b>DO NOT</b> touch uncontaminated surfaces with gloved hands</li> </ul>	<ul style="list-style-type: none"> <li>Utility gloves are to be worn during <b>ALL</b> disinfection procedures</li> <li>Whenever handling contaminated instruments or sharps</li> <li>When assigned to clinical assistant duties</li> <li>Following use, utility gloves should be washed with antimicrobial hand soap, rinsed thoroughly, dried and sprayed with disinfectant prior to removal. Utility gloves should be stored under the sinks in each operatory or in the instrument processing area. Utility gloves should be replaced at the first signs of cracking or deterioration.</li> </ul>	<ul style="list-style-type: none"> <li>Disposable masks <b>MUST</b> be worn whenever aerosol spray or spatter is generated (during patient therapy, operatory preparation, disinfection, and sterilization)</li> <li>Mask should be comfortable and fit well over the nose to avoid fogging glasses</li> <li>A new mask is worn for each patient; <u>if mask becomes wet during patient therapy</u>, it should be replaced.</li> <li>Remove mask when patient therapy is complete.</li> <li>Mask should <b>NOT</b> be worn under the chin.</li> <li>Remove mask by the elastic earloops; do not touch contaminated portion of mask</li> <li>Masks are disposed of with regular waste</li> <li>Masks should always be removed before leaving the operatory</li> </ul>	<ul style="list-style-type: none"> <li>Protective eyewear with side and top shields <b>MUST</b> be worn for all procedures whenever aerosol spray or spatter is generated.</li> <li>If prescription lens glasses need to be worn, goggles can be worn over the glasses or side shields but be placed on the prescription glasses.</li> <li>Glasses are to be cleaned with soap and water between seeing patient volunteers.</li> </ul>	<ul style="list-style-type: none"> <li>Students will be required to purchase scrub uniforms to be worn under fluid-resistant lab coats</li> <li>To prevent contamination of uniforms from blood and body substances, and to protect the skin of dental hygiene students and all personnel in the dental hygiene clinic, a lab coat <b>MUST</b> be worn during all patient care procedures.</li> <li>The lab coat <b>MUST</b> be buttoned (<u>including top button</u>) during all patient treatment procedures.</li> <li>Students should avoid touching clothing throughout the day; inspect the lab coat between patients, and change the lab coat every day or sooner if visibly soiled.</li> <li>The lab coat <b>MUST</b> be removed before leaving the operatory.</li> <li>Lab coats are <b>NOT</b> to be worn outside the clinic area.</li> <li>Following the clinic session and before leaving the department, the lab coat <b>MUST</b> be placed in a Biohazard bag and sent to be laundered.</li> </ul>

<p>(e.g. cabinet handles, pens, drawers, etc.)</p> <ul style="list-style-type: none"> <li>• DO NOT use petroleum or mineral based lotions. These items will affect glove integrity</li> <li>• Avoid touching contaminated gloves with bare hands</li> <li>• Dispose of immediately following therapy &amp; before leaving operator</li> </ul>				
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### PATIENT VOLUNTEER PPE

Protective Eyewear	Pre-Procedural Mouthrinse
<ul style="list-style-type: none"> <li>• Protective eyewear is required and must be used during all intra-oral procedures.</li> <li>• Eyewear <b>MUST</b> be disinfected between patients.</li> <li>• Patient volunteers <b>MUST</b> wear their own prescription glasses or protective eyewear provided by the dental hygiene student.</li> </ul>	<ul style="list-style-type: none"> <li>• Although studies have shown that aseptic technique of preprocedure mouth rinsing actually prevents diseases in dental team members, studies have shown that a mouth rinse with a long-lasting antimicrobial agent (chlorhexidine gluconate, essential oils, and iodophors) can reduce the level of oral microorganisms for up to 5 hours decreasing the number of microorganisms introduced into the patient’s bloodstream. During invasive dental procedures such as a prophylaxis and scaling/root planning, the dental hygiene student will utilize pre-procedural mouthrinses before the practice of patient volunteers.</li> </ul> <p style="text-align: center;"><b>Procedure: For Each Patient Volunteer:</b></p> <ul style="list-style-type: none"> <li>• Dispense mouth rinse (Listerine) into disposable cup.</li> <li>• Checking medical history for allergies, alcoholism, etc., before dispensing to the patient</li> <li>• Prior to treatment, at the beginning of each appointment, instruct the patient to swish the mouth rinse for 30 seconds and expectorate.</li> </ul>



## STANDARD PRECAUTIONS

The following are recommendations to limit contact with pathogens:

- Utilize Standard Precautions with every patient.
- Remove any unnecessary supplies and equipment from the operatory area. Keep all book bags, textbooks, and personal items in locker.
- Touch as few operatory surfaces as possible. Do not wear contaminated gloves when getting clean supplies.
- Minimize aerosols by utilizing saliva ejector/HVE system.
- After use, all reusable, autoclavable items are cleaned, dried, wrapped, immediately sterilized and stored for future use.
- Meticulous care should be taken to prevent contamination of patient records and radiographs.
- If a supply is needed during patient treatment, gloves should be removed, or an “overglove” should be used to obtain the supply. Dental hygiene students should never walk away from their operatory area with contaminated gloves.

## Infectious Diseases

It is important that dental hygiene students maintain standards of health care and professionalism that are consistent with the public’s expectations of Oral Health professionals. The following principles of the Occupational Safety and Health Administration Blood borne Pathogens Standards will apply to all dental personnel, including dentists, dental hygienists, dental assistants, and other faculty, students, and support personnel.

- All dental health care providers are ethically obligated to provide competent patient volunteer care with compassion and respect for human dignity.
- Dental health care personnel cannot refuse to treat a patient volunteer based on suspicion that the patient may have a blood-borne illness.
- All dental health care providers are ethically obligated to respect the rights of privacy and confidentiality of patient volunteers with infectious diseases adhering to all HIPAA laws.
- Dental health care providers who pose a risk of transmitting an infectious agent should consult with appropriate health care professionals to determine whether continuing to provide professional services represents any material risk to the patient. HCC is obligated to protect the privacy and confidentiality of any faculty member, student or staff member who has tested positive for an infectious disease.
- The following are prohibited in all lab and clinical areas; eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses.
- Food and drink shall **NOT** be kept in refrigerators, freezers, shelves, cabinets, or on countertops where blood or other potentially infectious materials are present.
- All procedures involving blood or other potentially infectious materials should be performed in such a manner as to minimize splashing, spraying, spattering and generation of droplets of these substances.
- Students are aware through orientation procedures that they are responsible for themselves and must demonstrate proof of immunity which includes MMR, hepatitis B, current tetanus, and TB skin test.

- This protocol is subject to annual review and changes if needed.
- These protocols are in compliance with current **OSHA** and **CDC** guidelines and meet current federal, state, and local guidelines.
- **To ensure the safety of our patients, faculty and students, guidelines stated in this manual cannot be compromised at any time.**
- Daily infection control protocol will be observed and graded by faculty on a patient to patient basis. This will be addressed on the daily grade sheet.
- **A student who receives more than one unsatisfactory in infection control procedures will require remediation in infection control in order to continue scheduling patient volunteers in the clinic. (A student may need to file a Critical Incident/Error form).**
- Remediation will consist of performing cubicle maintenance and following infection control protocol as a practical exam performed and evaluated by an infection control examiner and/or faculty member until satisfactory.

### **Infection Control Monitoring**

- Infection control practices during operatory set up and clean up, patient care, laboratory exercises, instrument processing and the taking of radiographs will be monitored daily by clinical faculty and the clinic coordinator.
- Any violation of infection control policies may be viewed as a critical error and may result in a 15 point deduction from the patient grade sheet
- **A total of two (2) critical error reports involving infection control during the course of the Dental Hygiene Program will result in a review by the faculty and possible dismissal from the Program.**

### **Hand Hygiene**

Hands are one of the most important sources of spreading disease microorganisms. Good hand hygiene (handwashing) is very important for disease prevention in dentistry.

- Surgical scrub products contain the highest levels of antimicrobial agents and are used in a more vigorous scrubbing procedure when maximum reduction in transient and resident flora is desired, such as before surgical procedures.
- When the hands contain no visible soil, alcohol based hand rubs without water and without rinsing have been shown to be effective in hand antisepsis. These hand rubs can also be used after surgical scrubbing with plain soap and water.
- At times, there may be a need to apply lotions to prevent dryness of hands, but lotions with a base of petroleum, lanolin, mineral oil, palm oil, or coconut oil have detrimental effects on latex gloves and should be avoided during clinic. Lotions should be applied at the end of the day.
- Nails should be kept short to allow for thorough cleaning and to prevent glove tears. Artificial nails which can harbor microbes should not be worn. Hand and arm jewelry should not be worn during surgical or non-surgical procedures.
- Students will learn proper Handwashing technique in DHYG 100.

## **MAINTAINING SURFACE AND EQUIPMENT ASEPSIS**

## **DENTAL UNIT WATER LINE**

- **Follow manufacturer's directions**
- Add water to bottle as needed, not touching inside tubing area.
- Dental unit water lines are to be flushed for 3 minutes before use at each clinic session and 30 seconds between each patient. Water lines should be flushed for 3 minutes at the end of the clinic session.
- Water lines for the ultrasonic scaler should be flushed for 3 minutes before use and 30 seconds between patients prior to inserting sterile tip. Water lines should be flushed for 3 minutes at the end of the clinic session.