Manual on Infection Prevention and Environmental Health and Safety, Policy Statement on Infection Control and Policy on Students with Blood Borne Pathogens Columbia University Health Care At

Columbia University College of Dental Medicine

2016

#### **INFECTION PREVENTION:**

#### **OVERVIEW**

In the development of appropriate protocols for the prevention of infection spread from patient to patient, healthcare provider to patient, or patient to staff it is important to recognize the areas in which management can help prevent this from occurring. Improper management of infected tissue, saliva, blood and other potentially infectious material (BOPIM) pose high infectious risks to all involved in oral health care. Practical control of the environment is a multi-step process and MUST include those items that will help reduce the spread of infection. It should also include work practices, engineering, and mechanical controls that reduce the risk of transmission. This manual contains the following sections:

- I. Barrier technique.
- II. Aseptic technique.
- III. Surface disinfection.
- IV. Instrument sterilization.
- V. Procedures of Infection Control.
- **VI.** Parenteral Exposure Protocol Policy and Procedure:
- VII. Tubercubsis: Protocol, Policy and Procedure.
- VIII. Hazardous Materials
- IX. Appendices

The Goals of any Infection Prevention Program include:

- 1. Reducing the number of available pathogenic organisms.
- 2. Breaking the cycle of infection transmission.
- 3. Treating all patients, instruments and/or patient contact items as infectious <u>using standard precautions</u>
- 4. Preventing the spread of infectious agents between patients, providers and staff by protecting health care providers, patients and personnel from cross contamination.

• I. BARRIER TECHNIQUES: Barrier techniques are used to prevent the spread of infection by containment. They prevent organisms from escaping their source. The primary way in doing this is by using Personal Protective Equipment (PPE).

#### • Gloves:

For the protection of personnel and patients gloves <u>MUST</u> always be worn when touching blood, saliva, mucous membranes or BOPIM as well as contaminated surfaces or surfaces contaminated by them. Gloves <u>MUST NOT</u> be reused or washed and reused. Torn or punctured gloves <u>MUST</u> be removed, hand hygiene performed, and replaced immediately.

## • Heavy Utility Gloves:

 When cleaning instruments, equipment and dental units or when significant tactile sense is not needed heavy utility gloves <u>MUST</u> be used.

# Surgical Mask:

o For the protection of personnel and patients, masks <u>MUST</u> always be worn when in the clinical area and to prevent aerosol, splashing and/or spattering of fluids and debris into mucous membranes. Masks must also be worn when working in the pre-clinical laboratories. The mask should have adequate bacterial filtration efficiency and fluid resistance for the procedure being performed as well as the precautions dictated by the patient. Masks <u>MUST</u> be changed between patients or when they become significantly moist that they no longer act as a barrier.

## • Protective Eyewear:

- o For the protection of personnel and patients, protective eyewear <u>MUST</u> always be worn when in the clinical area by the employee, student, resident and faculty when aerosol, splashing and/or spattering of fluids and debris is likely. For employees, students, residents and faculty who use eyewear they <u>MUST</u> have side shields. Otherwise, a face shield Must be worn instead.
- o Patients <u>Must</u> also wear protective eyewear during procedures in which aerosol, splashing and/or spattering of fluids and debris is likely.

#### Gowns:

For the protection of personnel, gowns <u>MUST</u> be worn over clothing when in clinical and laboratory areas and when clothing is likely to be soiled with blood or other fluids. Gowns <u>should be changed daily</u> or sooner if they become visibly soiled. If disposable they can be disposed of in normal waste. If they require laundering they <u>MUST</u> be laundered in hot water with detergent. The protective gown <u>MUST NOT</u> be worn outside the clinical environment.

## • Protective Barriers:

Coverings MUST be used on hard to clean surfaces exposed to contamination which can be defined as a six foot circle from the field of operation. Coverings on other surfaces are advisable. Between each patient these covers <u>MUST</u> be removed discarded appropriately and surfaces disinfected while wearing gloves.

## • Rubber Dam Isolation:

 Whenever possible, rubber dam isolation with the use of high speed evacuation and proper patient positioning should be used to minimize the formation of droplets and isolating the field of operation. This will also minimize the aerosol from mixing with contaminated saliva and blood. **II. ASEPTIC TECHNIQUE:** Aseptic technique is used to prevent or reduce the spread of microorganisms from one site to another, such as from patient to healthcare worker (HCW), from patient to surface, or one area of an office to another.

## • Hand Hygiene:

- The single most important means of preventing the spread of infection is handwashing and/or hand sanitizing.
  - Hand washing: Hands <u>MUST</u> be washed using soap by vigorous and thorough scrubbing of all surfaces for a minimum of 15 seconds prior to the initial patient contact of the day, whenever hands are visibly soiled, after eating or using the lavatory and at the end of the day. When washed, they should be rinsed and dried using fresh paper towels. Faucet handles are considered contaminated and should be turned off using dry paper towels.
  - Hand sanitizing: Between patients when hands are not visibly soiled they should be sanitized using an alcohol hand sanitizer. The sanitizer MUST contain > 60% ethyl alcohol. A dime size amount should be dispensed and rubbed over all surfaces of the hands which should be allowed to dry before gloving.
  - Hands should be washed or sanitized immediately after removing gloves due to the build-up of bacteria under them. In the event a glove is torn, it should be removed and hands immediately appropriately washed or sanitized.

## • Sharp Instruments and needles:

Sharp items are considered potentially infectious and <u>MUST</u> be handled with great care. Needles and scalpel blades <u>MUST</u> be placed into puncture resistant sharps containers whether used or not. Whenever possible needles should not be recapped, but if need be, the cap <u>MUST</u> be replaced using the no touch technique, a hemostat, a recapping device or college pliers. Other items such as irrigation syringes, endodontic instruments, orthodontic wires, anesthetic carpules which have been used and do not contain any remaining anesthetic fluid in carpule, scalpel blades, <u>MUST</u> also be disposed of in puncture resistant sharps containers. Anesthetic carpules that contain residual fluid in them after they are used are to be wasted into a gauze pad. The empty carpule is then placed in a sharps container.

## • Chain of Asepsis:

O In order to maintain asepsis during treatment, do not, touch nose, eyes, glasses, hair, pants, phone, charts, pencils, chairs, etc. If this occurs one should remove their gloves, perform appropriate hand hygiene and immediately re-glove to re-establish clinical asepsis. Whenever leaving the operatory gloves must be removed and hands washed or sanitized. All Personal Protective Equipment (PPE) must removed when leaving patient care/clinic areas, and laboratories

Never wash/sanitize and reuse gloves.

## III. SURFACE DISINFECTION:

#### **Disinfection:**

Disinfection refers to the use of a germicidal chemical agent to destroy the potential infectivity of a material. It is a less lethal process than sterilization. The removal of extraneous material prior to the use of the disinfectant by pre-cleaning the area with soap and water will increase its efficacy significantly. The effectiveness of a disinfectant is controlled by many factors. These factors include:

- a. Number of organisms exposed to the disinfectant.
- b. Concentration and type of chemical disinfectant.
- c. Length of exposure to the disinfectant.
- d. Temperature at which the disinfectant is used.
- e. Type of material being disinfected.

All disinfectants must be EPA (Environmental Protection Agency) Hospital approved and must be used according to the manufacturer's directions. The EPA in the United States regulates all gaseous sterilants and liquid disinfectants. Disinfectants are classified by the spectrum of organisms for which they are effective.

# • High Level Disinfection:

- An essential property of a high level disinfectant is its effectiveness against high numbers of bacterial endospores. Best used on semi-critical items when sterilization is not possible.
  - Example: Glutaraldehyde

## • Intermediate Level Disinfection:

- To be used on inanimate objects which are non-critical but may have visible blood. Intermediate Disinfectants are defined by being effective against vegetative bacteria, most fungi and most viruses. However most important is that it <u>DOES</u> inactivate Mycobacterium Tuberculosis which earns its designation as a "Hospital Disinfectant with a Tuberculocidal Claim".
  - Examples: Phenolics, Iodophors, Quaternary ammonium compounds

# • <u>Low Level Disinfectant:</u>

- These disinfectants are those that destroy most vegetative bacteria, some fungi and virus but most important is to recognize that they are <u>NOT</u>
   <u>EFFECTIVE</u> in inactivating Mycobacterium Tuberculosis. Therefore it is only designated as a "Hospital Disinfectant".
  - Examples: Some phenolics, some iodophors, some quaternary ammonium compounds.

# • Disinfection of Counter Tops and Surfaces:

Areas that may have become contaminated with blood, saliva, or other potentially infectious materials should be cleaned of extraneous organic material and then decontaminated with an intermediate or low level disinfectant. Impervious backed paper, inexpensive foil, or clear plastic wrap may also be used to cover surfaces that may become contaminated, and do not lend themselves well to disinfection. By covering surfaces there is an increase in the efficacy of the disinfectant due to the decrease in the bioburden.

# • Disinfection of Materials, Supplies, and Impression Materials:

Thoroughly and <u>carefully</u> remove visible blood or saliva from impressions, laboratory supplies and materials using a brush and/or running water. Materials impressions and prosthetic devices should be decontaminated with disinfectant according to manufacturer directions. Studies have shown the dimensional stability at the end of disinfection for most Polyvinyl Silicone (PVS) and Polyether (PE) remain within ADA standards of dimensional change of less than or equal to 0.5%. Prosthetic devices should be disinfected with an intermediate level disinfection according to manufacturer directions. A spray technique or immersion technique done according to manufacturer directions is primarily used.

#### IV. INSTRUMENT STERILIZATION:

# Classification of items on the degree of their risk in transmitting disease:

These categories were created by Spaulding so that one could assess the potential risk of spreading infection and how to decrease this risk.

- 1. **Critical Items**: These are instruments or materials that are introduced directly into the body, into the blood or into a normally sterile area of the body. Sterilization of critical items is the only acceptable means of controlling the risk of infection.
- 2. **Semi-critical Items**: These are instruments and/or materials that do not normally disrupt intact mucous membranes. Sterilization is desirable however high-level disinfection gives a reasonable means of controlling the risk of infection. All items that are semi-critical and capable of being sterilized should be sterilized.
- 3. **Non-critical Items:** These are items that do not ordinarily contact the patient directly or contact only unbroken skin. Intermediate and/or low level disinfection is a reasonable means of controlling the risk of infection.

## **STERILIZATION:**

Sterilization is the use of physical or chemical agents to eliminate all viable microbes from a material.

The method of sterilization most commonly used in dentistry is steam under pressure. Most microbes are destroyed with just the use of boiling water however, spores of some organisms can survive boiling for hours. At the present time the most acceptable methods of sterilization used in dentistry are:

- 1. Steam under pressure: 121 C at 15 psi for 15 minutes. This is the most efficient and rapid method.
- 2. **Dry Heat: 160-170 C (320-347 F) for 1-1.5 hours.** Instruments must be completely dry and clean of organic debris prior to this process.
- 3. **Ethylene Oxide**: The use of Ethylene Oxide gas is to sterilize items that must be processed at very low temperatures such as electronic components. This type of sterilization is usually only available in hospitals.

# **Sterilization of Instruments:**

Surgical instruments and those instruments that normally penetrate soft tissue and are therefore considered critical must be sterilized after each use or be single patient use items. Instruments that may come into contact with oral tissues and are considered semi-critical should, if possible, be sterilized after each use. However, if sterilization is not feasible, these semi-critical instruments should receive chemical

sterilization according to manufacturer's directions or high level disinfection.

# **Processing of instruments:**

Before being sterilized instruments should be cleaned to remove gross debris. This should be done, when possible, using ultrasonic cleaning. The use of an ultrasonic cleaning device is used in an effort to help prevent personal injury by mechanically loosening the gross debris. In the absence of ultrasonic cleaning, instruments should be soaked in an enzymatic detergent and then cleaned by hand using heavy utility gloves for protection. Once these instruments are cleaned they are ready to be appropriately packaged and sterilized. Critical instruments must be sterilized between patients. Sterilizers <u>MUST</u> be tested with biological indicators at least weekly.

# **Packaging Instruments for Sterilization:**

Once processed instruments, whether in cassettes or free, need to be packaged in either a sterilization pouch or surgical wrap. This packaging will ensure sterility once the instrument package has been sterilized. Indicators are used to help users determine if the package has been processed.

## **Sterilization of Handpiece:**

Dental handpieces <u>MUST</u> be sterilized between patients. Manufacturer directions <u>MUST</u> be followed to ensure safe processing. Disposable prophy angles are for single patient use. Handpieces should be flushed for 30 seconds prior to sterilization and prior to use at the time of the next visit.

## **Sterilization Monitoring:**

Monitoring of sterilization occurs in three ways:

- 1. Chemically
- 2. Biologically
- 3. Mechanically

All items that are sterilized <u>MUST</u> be wrapped and dated with the date, time the cycle of sterilization was run. This can be done by simply writing the information on the outside of the package or as complex as bar coding each package and scanning it to a data base at the time of sterilization. This information is important in the event of a positive biological monitor necessitating the recall and re-sterilizing of instruments.

- 1. Chemically: The outside and inside of the package <u>MUST</u> have a chemical heat sensitive indicator. This indicator provides evidence that the package was processed and that the exterior and interior of the packaged reached the required temperature. It is not an indicator that the temperature or the pressure was maintained for an adequate amount of time to achieve sterilization.
- 2. Biologically: To ensure that sterilization has occurred the sterilizer must be biologically monitored on a weekly basis. Biological monitors are done using highly resistant bacterial spores. In the case of steam sterilizers Geobacillius *stearothermophilus* spores and for dry heat Bacillus *atrophaeus* spores are used.
  - 3. Mechanically: To ensure that the sterilizer is processing correctly it is

mechanically monitored by the data of the machine operations. This includes documenting the date, load number, time of day, temperature and length of the cycle. Again this documentation does not ensure sterility but does allow monitoring of the sterilizers mechanical operation.

# **Recall of Instruments due to Processing Failure:**

In the event of a positive biological monitoring finding the following must occur:

- 1. A second biological monitor should be run in an empty sterilizer.
- 2. All instruments processed in this sterilizer since the last negative biological test must be recalled to be reprocessed.
- 3. Request for service of the sterilizer should be made.
- 4. In the event of a noted mechanical error, the load should be rerun with a biological monitor.

# V. PROCEDURES OF INFECTION CONTROL

## A. Prior to Seating the Patient:

## Wipe off all surfaces of gross debris using a moist paper towel.

The dental operatory surfaces are considered non-critical and should be wiped while wearing gloves with clean moist paper towels to remove gross debris prior to each patient. By removing the gross debris, known as bioburden, the disinfectant being used becomes more effective due to the reduced bacterial load. Non-critical surfaces are those areas that do not ordinarily contact the patient directly. Examples include chair handles, light handles, x-ray machines, bracket tables, chair back, counter tops and others.

#### **Surface Disinfection:**

Once the gross debris (Bio Burden) has been removed the non-critical surfaces should be wiped with a low (EPA Hospital registered disinfectant with an HBV and HIV label claim) or intermediate disinfectant (EPA Hospital registered disinfectant with tuberculocidal claim). The use of impregnated wipes is acceptable and should be used according to the manufactures directions. The surface should be allowed to air dry. **Do not use Glutaraldehyde or Bleach for surface disinfection** because of their toxicity and corrosive nature.

## **Remove Gloves:**

Once the non-critical areas have been disinfected you should remove your gloves, dispose of them properly and perform hand hygiene.

#### **Surface Barriers:**

Cover all non-critical areas that are unable to be easily disinfected and are within a six foot radius of the operating surgical field. This is the area most susceptible to contaminated aerosol production. The use of plastic bags in an appropriate manner can be accomplished quickly and easily. Do **NOT** use tape to attach plastic or other coverings. Flat surface areas that are non-critical can be covered with non-porous paper to protect the surfaces. Surface barriers should be used on light handles, triplex syringe handles, suction tubing, counter tops and mobile work surfaces. In addition, keyboards and the computer mouse **MUST** be covered with a barrier.

#### **Headrest Covers:**

Headrest covers must be changed between each patient. The use of a large clear plastic covering for the back of the chair, to include the headrest, creates a great barrier.

# <u>Disposable Saliva Ejectors, High Speed evacuation Tips and Triplex Syringe</u> <u>Tips and water bottle:</u>

Place a new saliva ejector, high speed suction tip and triplex syringe tip. Saliva ejectors, high speed evacuation and triplex syringe tips **MUST** be single use items and **MUST** be disposed of between each patient.

#### **Dental Unit Water Bottle Procedure:**

#### Procedure:

- 1. Using appropriate personal protective equipment including protective eyewear, at the end of the day the provider will remove the independent water supply bottle from the dental unit and empty the contents in the sink.
- 2. Once the bottle is emptied it will be **placed upside down on a flat surface**. At the beginning of the next day the water bottle should be filled with tap water, placed back on the unit and then purge all of the dental water lines for 2 minutes prior to seating the first patient.
- 3. Using appropriate personal protective equipment including protective eyewear, at the beginning of the next day, prior to seating the first patient, the independent water supply bottle will be removed from the dental unit and rinsed with tap water.
- 4. If possible the disinfectant cartridge should be gently wiped and ensure that the intake end is not obstructed.
- 5. The independent water bottle should then be **filled with fresh tap water** and reattached to the dental unit
- 6. Once re-attached, and prior to seating the first patient and prior to attaching the hand-pieces and triplex syringe tip, the provider should flush all of the dental unit waterlines for 2 minutes.

#### **Instruments:**

Prior to seating the patient all instruments needed for treatment must be accessible. Instruments used in the delivery of dental care should be considered critical items and during care should be maintained within the circle of patient care. This circle is considered to be six feet in diameter from the field of operation (Oral Cavity). Review the procedure and the instruments needed prior to seating the patient. This includes restorative tray, rubber dam tray and clamps, examination tray, burs needed, wedges, matrix bands etc. Instruments should not be opened until the patient is seated.

# Handpiece:

Prior to a procedure the high speed handpiece should be flushed for 30

seconds.

#### Work stations:

Once the instruments are set up for patient care and patient care is started, all cabinets, and draws **MUST** be closed and **one MUST NOT open cabinets or drawers while wearing gloves.** If instruments are needed, the gloves should be removed, hands sanitized and then the cabinet or drawer opened.

## **Radiographs:**

Prior to seating the patient all pertinent x-rays should be brought up on the monitor to be available for viewing during the procedure.

## Gloves, Mask, and Protective Eyewear:

Place a pair of gloves, a mask, and protective eyewear in the operatory.

## **Seat Patient**

# **B.** Once the patient is seated:

## **Patient Position**

Prior to putting on gloves, the patient should be seated and positioned according to the procedure to be performed (ie. supine, 45 degrees etc.)

# **Light Position:**

Prior to putting on gloves the examination light can be adjusted to provide adequate lighting for the procedure to be done.

## **Operating Unit Position:**

Prior to putting on gloves the operating unit should be positioned for easy access.

# Personal Protective Equipment: (PPE) Gown, Mask, Eyewear and gloves:

One MUST put on a gown, glasses with side shields and or face mask with shield and exam gloves. Gloves are the last PPE to be put on prior to clinical care.

#### Gowns:

Disposable gowns **MUST** be worn for all procedures.

## Hand Hygiene:

Hand Hygiene must be done as follows: Hands should be appropriately washed with soap, before the first patient of the day, after eating, after using the lavatory and if they are visibly contaminated. In other instances they may be sanitized according to the directions of the manufacturer and aseptic technique using a hand sanitizer that contains at least 60% isopropyl alcohol as the active ingredient. This is described under hand washing.

## **Gloves:**

Once hands are sanitized the provider should put on their examination gloves. Whenever the practitioner leaves the operatory the gloves should be removed immediately and hands sanitized or washed. Gloves should also be removed if the practitioner wishes to use items not in the operating field.

## **Rubber Dam and High Speed Suction:**

The use of isolation and high speed evacuation should be used whenever possible to limit the amount of aerosol, splatter and to separate the operating field from the patient.

# **Instrumentation:**

All instruments used in intra-oral procedures should be maintained in a contained location. This limits the field of contamination.

# **During the Procedure:**

One should maintain the operating area in neatly organized manner as possible. Counter tops should only contain those items that are being used for the procedure as they can become contaminated. During the procedure it may be necessary to stop and reorganize.

Impressions: Impressions or intraoral dental prosthesis are considered semi-critical or non-critical items and therefore need to be disinfected using an intermediate or low level EPA registered disinfectant.

The most common types of impressions used include:

Alginate (Jeltrate)
Polyether (Impregum)
Silicone Rubber (Aquasil)
Polysulfide (Permlastic Rubber Base)

An effective way in disinfecting impressions after they are removed from the mouth, before they are poured in stone, is to rinse the impression with water to remove gross debris, spraying the impression with the disinfectant, wrapping them in paper toweling and then placing them in a plastic bag for the required length of time according to manufacturer directions. In all cases one should consult the manufacturer directions to ensure using the product safely. Once the required time has passed the impression can be rinsed, wrapped and sent/brought to the lab for processing. The prescription should state that the impression or casts have been disinfected.

#### **Sterile Instruments:**

Only sterile instruments **MUST** be used during the procedure. It is appropriate to open the instruments from their sterile packaging in front of the patient.

#### **Patient Dismissal:**

Once the procedure is completed remove your gloves, immediately perform appropriate hand hygiene, and dismiss your patient.

#### **Unit Breakdown:**

## **Gloves:**

Once the patient has been dismissed prepare for unit disinfection and instrument sterilization by putting on a clean pair of gloves or clean utility gloves.

## **Needles and Sharps:**

Carefully dispose of the syringes, syringe needles, scalpel blades, anesthetic cartridges, endodontic irrigating syringe, or any other potentially sharp object in the puncture proof sharps containers. Needles should be handled with the utmost care. Recapping MUST be done before removing needles from the syringe using the no touch technique, a recapping device or with the assistance of a hemostat or college pliers in a direction away from the operator. Once the needle has been recapped it can be removed from the dental syringe.

#### **Instruments:**

Place all instruments that were used in during intra-oral procedure in their cassette which will be ultrasonically cleaned.

## **Remove Barriers:**

All disposable coverings **MUST** be removed. Care must be taken to make sure that there are not any disposables remaining on or around the dental unit. All disposable barriers that are not blood stained can be placed in normal non-regulated medical waste receptacles.

#### **Remove Gross Debris:**

Using a damp paper towel wipe down all areas of possible contamination. This pre-disinfecting process reduces the amount of bio-burden to allow disinfectants to be more effective. These areas include: Chair, counter tops, handles, bracket table, suction tubing and any other areas you may consider as potentially contaminated.

## **Disinfectant wipe:**

Using an intermediate or low disinfectant, wipe those areas of possible contamination and allow them to air dry.

## **Instruments:**

Even if using Ultrasonic Cleaning devices cements and impression materials should be carefully removed. The use of gloves during this time is essential, heavy utility gloves should be used to offer added protection. This is a very common time for percutaneous exposure. Do not pick up a handful of instruments at a time.

#### **Sterilization:**

All instruments and handpieces **MUST** be steam autoclaved and should be placed in a cassette or bagged in an appropriate sterilization bag.

#### **Process of Instrument Submission:**

All items capable of being steam sterilized **MUST** be submitted to central sterilization. Instruments should be placed in their autoclave cassettes or appropriate packages. Handpiece should be placed in their cassettes, packaged, dated and labeled. Instruments transported through the stairwells or elevators **MUST** be wrapped with plastic or draped. Instruments are submitted to the decontamination area.

#### **Handpiece:**

Handpieces MUST be autoclaved according to manufacturer's directions.

Handpiece should be run for 30 seconds to flush the lines before and after each patient and at the beginning and end of each day.

#### **Suction:**

At least once per week the suction should be flushed with enzymatic solution. Daily in those areas where surgery is the normal activity. This is currently not being followed.

#### **Remove Gloves:**

Once the unit disinfection is complete gloves should be removed and hands hygiene performed. If utility gloves were used they should be disinfected and allowed to air dry before storing.

## **Next Patient:**

Prior to seating the next patient, start operatory preparation on the infection control check list titled "Prior to Seating the Patient".

# **End of Day:**

At the end of the day, after completing the disinfection of the dental unit, it should be turned off and raised in an upright position with the rheostat on the chair. There should not be any disposables on the units, counters and floors. The sink area should be clean. Walls, cabinet tops, and windows sills - <u>MUST be</u> cleared of debris.

# VI. Parenteral Exposure Protocol Policy and Procedure:

- A. Definition of Occupational Exposures:
  - 1. Contaminated needle stick.
  - 2. Puncture wound from a contaminated sharp dental instrument.
  - 3. Contamination of any obviously open wound, non-intact skin, or mucous membranes by saliva (in dentistry), blood, or a mixture of both saliva and blood.
- B. Exposure to the patient's blood or saliva on the **unbroken** skin is not considered significant.
- C. Protocol: In the event of an occupational exposure:

Student Exposure: Emergencies: CUMC Student Health Service

- 1. **Immediately stop working and** cleanse the wound thoroughly with soap and water.
- 2. Inform the faculty member you are working with and a clinic administrator.
- 3. Inform the patient, with the faculty member and clinic administrator present, of your exposure and discuss the obtainment and permission for blood testing. Patients have the right to refuse testing. This will be done at a cost to the clinic not the patient. Patients must be accompanied to the Oral Surgery Clinic on VC-7 by Faculty member or Administrator. Patient's blood will be drawn by OS Nurse or OS Resident. Assure the patient that there is no risk to them and that it is for your information and reassurance that you need the evaluation.
- 4. The patient should be screened for HCV, HBV and with an expedited HIV antibody test.
- 5. The student MUST go to Student Health at 60 Haven Avenue (ground floor) (305-3400) if before 5 pm or the NYPH emergency room if after 5 pm.
- 6. Students must complete an electronic incident report in Axium.
- 7. Follow-up with Student Health

## **Faculty Exposure**

1. **Immediately** cleanse the wound thoroughly with soap and water.

- 2. Inform the patient of your exposure and discuss the obtainment and permission for blood testing. (HCV, HBV, and HIV). This can be done through the patients' private physician or we can refer the patient. This will be done at a cost to the clinic. Assure the patient that there is no risk to them and that it is for your information and reassurance that you need the evaluation.
- 3. Complete an electronic incident report in Axium.
- 4. During clinic hours either contact your private physician or Workforce Health Safety (WHS) on the first floor of the Harkness Pavilion (305-7590).
- 5. After clinic hours either contact your private physician, or page the on call infectious disease resident by calling the page operator 305-2323 or go to the emergency room.
- 6. Follow-up with Workforce

#### **Staff Exposure:**

- 1. **Immediately stop working and** cleanse the wound thoroughly with soap and water. Inform your Supervisor/Administrator of your exposure ASAP.
- 2. Attempt to determine the source patient. If the source is obtainable allow your Supervisor/Administrator to inform them of the exposure and allow your supervisor/administrator to obtain permission for testing (HBV, HCV, HIV). If HIV serostatus of the source is unknown, voluntary HIV testing of the source should be sought. In New York State, specific informed consent for HIV testing is required. Informed consent is not required for anonymous HIV testing of a person who is the source of an occupational exposure, who is deceased, comatose, or otherwise unable to provide consent, and no person authorized to consent on behalf of the source patient is immediately available, as provided in Public Health Law section 2781(6)(e). The results of such anonymous test, but not the identity of the source person, shall be disclosed only to the attending health care professional of the exposed person solely for the purpose of assisting the exposed person in making appropriate decisions regarding post-exposure medical treatment. The results of the test shall not be disclosed to the source person or placed in the source person's medical record (https://www.health.ny.gov/regulations/recently\_adopted/docs/2012-02-22 hiv-aids testing.pdf and http://www.hivguidelines.org/wpcontent/uploads/2014/11/hiv-prophylaxis-following-occupationalexposure.pdf).
- 3. Discuss with supervisor. Complete the electronic accident report in Axium.
- 4. During clinic hours either contact your private physician or WHS on the

first floor of the Harkness Pavillion (305-7590).

- 5. After clinic hours either contact your private physician, or page the on call infectious disease resident by calling the page operator at 305-2323 or go to the emergency room.
- 6. Follow-up with Workforce

## VII. TUBERCULOSIS: PROTOCOL, POLICY AND PROCEDURE

Policy: All patients with a history of Tuberculosis or suspected of having

Tuberculosis will be handled with a hierarchy of controls.

Purpose: To prevent the spread of tuberculosis during clinical dental care.

Procedure: The following will be the procedures for patients who present to

the dental clinics with a history of tuberculosis.

1. Treatment should be delayed, if possible, until a determination of infectious tuberculosis is made.

- 2. In screening patients for the identification of active tuberculosis the following should be considered.
  - a. A diagnosis of active pulmonary tuberculosis should be considered for all patients with any of the following clinical profiles:
    - 1. Productive or persistent cough, night sweats, unexplained weight loss or hemoptysis.
    - 2. Known or suspected HIV infection with cough or fever, even in the absence of "classic" chest x-ray.
    - 3. Cough and fever, coupled with: (a) significant reaction to tuberculin test, (b) history of significant reaction to a skin test, (c) history of exposure to infectious tuberculosis.
  - b. Any patient with a history of tuberculosis or positive skin test that is scheduled for dental procedure should be promptly referred for evaluation for possible infectiousness. Clinical evidence that they are noninfectious is to be obtained before elective dental care is provided.
  - c. Respirators should be available to CUMC employees, faculty and students.
- 3. Elective dental care should not be performed on patients with active tuberculosis until the patient is rendered non-infectious.
- 4. In the event that emergent dental care is needed for a patient with active tuberculosis this treatment should be done in a negative pressure room and the staff member must use a respirator mask approved for isolation. This care should be coordinated with the Hospital Dental Service Division of Oral and Maxillofacial Surgery.

#### VIII. Hazardous Materials:

#### A. INTRODUCTION

The purpose of the Environmental Safety and Hazardous Materials section is to provide you with information that will help protect you against hazardous substances in the workplace of the Columbia University College of Dental Medicine. Within this program you will be informed of the hazardous properties of substances with which you work or come into contact and the handling procedures and measures necessary to protect yourself from these substances. The manual explains those situations in which you might be exposed to hazardous substances under normal working conditions or during emergency situations.

The Columbia University Medical Center has a website from the Office of Environmental Health and Safety in which compliance and Safety Data Sheet information is available. SDS sheets are directly available via the following Web-site:

Environmental Health & Safety Homepage

Using the link for Safety Data Sheets on the left hand side.

This manual includes a list of materials present in the dental clinics. In addition a file of Safety Data Sheets (SDS) are maintained in the Office of Clinic Administration and in Central Sterilization VC-8.

#### B. HAZARDOUS CHEMICALS:

A **hazardous substance** is any substance considered to be a physical or health hazard.

A <u>physical hazard</u> is any chemical for which there is scientific evidence that it is a combustible liquid or compressed gas, an organic peroxide, or a material that is explosive, flammable, oxidizing, pyrophoric, unstable (reactive), or water-reactive.

A <u>health hazard</u> is any chemical or biological substance or agent which is considered to be a carcinogen, a toxic or highly toxic agent, a reproductive toxin, an irritant or corrosive, or an agent which acts on the circulatory system or damages the lungs, skin, eyes, or mucous membranes.

When working with hazardous chemicals:

- Do not use a flame near flammable chemicals.
- Do not eat or smoke in areas where chemicals are used.
- When appropriate, wear protective evewear and mask.
- Know the proper cleanup procedures for chemicals.
- Dispose of all hazardous chemicals in accordance with Columbia University Health Sciences Policies or by calling Environmental Health and Safety at 212-305-6780.

Common products handled at the College of Dental Medicine include but is not limited to the following list. Consumer products (products used in the same manner and frequency as they would be at home) and drugs in solid, final form are **not** included in this list.

CHEMICAL NAME	MAY BE FOUND IN	
Acid, phosphoric	Etching agents; phosphate cements.	
Acid, sulfuric	Etchants for alloys; copper plating solutions.	
Alcohol, isopropyl	Solvents; wiping agents.	
Alcohol, methyl	Denatured alcohol.	
Beryllium	Base-metal alloys.	
Formaldehyde	Sterilizing solutions.	
Iodine	Iodophor disinfectants; antimicrobial hand cleaners.	
Lead/inorganic lead compounds	Impression materials (some polysulfides)	
Liquid petroleum gas	Burners.	
Mercury, inorganic	Amalgam.	
Mercury, organic	Topical antiseptics.	
Methyl acetate	Solvents.	
Methyl methacrylate	Denture base resins.	
Methylene chloride	Solvents.	
Nickel	Steel orthodontic appliances.	
Nitrous oxide	Nitrous oxide.	
Oil mist, mineral	Handpiece lubricants.	
Petroleum distillates	Solvents; waxes; jellies.	
Phenol	Disinfectants.	
Platinum soluble salts	Impression materials.	
Platinum	Casting alloys.	
Propane	Burners.	

Rouge	Polishing agent.	
Silica, amorphous	Composite resins.	
Silica, crystalline (quartz)	Composite resins; porcelain; investments.	
Silicon carbide	Polishing disks; cutting wheels.	
Silver	Amalgam; casting alloys; photographic solutions.	
Talc	Gloves.	
Tin, inorganic compounds	Amalgam; polishing pastes.	
Tin, organic compounds	Impression materials (condensation silicones).	
Titanium dioxide	Porcelain; impression materials.	
Toluene	Solvents.	
Vinyl chloride	Maxillofacial plastics; mouth guard trays	
Zirconium compounds	Porcelain; polishing pastes	

Descriptions of some of the more prominent materials follow:

**Acid-Etch Materials** are solutions and gels used with bonding techniques. They usually contain phosphoric acid. Hazards with these materials include eye damage and acid burns with possible sloughing of tissue. Appropriate precautions include the following:

- Handle acid-soaked material with forceps or gloves.
- Clean up spills.
- Avoid skin or soft tissue contact.
- Rinse large amounts of running water in case of eye or skin contact.

**Flammable gases** include nitrous oxide, oxygen, and liquefied petroleum gas. The chief hazard with these materials is fire. To maximize safety:

- To test periodically for leaks.
- Avoid contact between compressed oxygen gas and lubricants or grease.
- > Keep sparks or flames away from flammable gases.
- Secure tanks of oxygen and nitrous oxide by chaining them to the wall or placing them in approved cylinder holders to prevent toppling.

**Flammable liquids** include such solvents as acetone and alcohol. As with flammable gases, the primary hazard is fire or explosion. To maximize safety:

- A A A AStore in tightly covered containers.
- Provide adequate ventilation.
- Have fire extinguisher available at locations where these liquids are used.
- Avoid sparks or flames in areas where flammable liquids are used.
- Store any flammable liquid in excess of 10 gallons per location in a flame-proof cabinet.

**Mercury** is extremely common in dentistry and is used most often in pre-measured amalgam capsules. It is also available in bulk form and found in scrap amalgam. Some associated hazards include nausea, loss of appetite, diarrhea, fine tremors, depression, fatigue, increased irritability, headache, insomnia, allergic manifestation, contact dermatitis, pneumonitis, nephritis, dark pigmentation of the marginal gingiva, and loosening of the teeth. When working with mercury:

- Work in well ventilated spaces and avoid direct skin contact.
- Store mercury in unbreakable tightly sealed containers away from any source of
- Salvage amalgam scrap and extracted teeth with amalgam. These should be deposited in containers located within the clinic designated for scrap amalgam.
- Clean up mercury spills by calling Environmental Health and Safety 212-305-6780.

Nickel and other metals are found in some dental alloys, gold alloys and solders. Particles can be released during grinding. Hazards associated with these metals include: allergic manifestations and irritation to the eyes and respiratory system. When working with alloys always wear protective eyewear and a mask during grinding procedures.

**Nitrous oxide** is used in conscious sedation. Nitrous oxide abuse or high exposure levels may cause adverse effects, especially neuropathies and spontaneous abortions. When using nitrous oxide/oxygen for conscious sedation, use the minimal amount necessary to achieve the desired level of sedation. Use a scavenging system and always maintain adequate ventilation. Periodically check nitrous oxide machines, lines, hoses and masks for leaks. All areas in which Nitrous Oxide is used are measured for ambient gas on an annual basis.

**Organic Chemicals** include alcohols, solvents and monomers such as methylmethacrylate and dimethacrylate. The halogen containing organic liquids include: chloroform, carbon tetrachloride and some solvents and cleaners. Hazards include: fire, allergy, contact dermatitis, irritation to mucous membranes, respiratory problems, nausea, liver and kidney damage, central nervous system depression, headache, drowsiness, and loss of consciousness. The following precautions should be taken:

- Avoid skin contact and excessive inhalation of vapors.
- Work in well ventilated areas.
- Use forceps or gloves when handling contaminated gauze or brushes.
- Keep containers tightly closed when not in use and store all containers on flat

- sturdy surfaces.
- Clean the outside surfaces of containers after use to prevent residual material from contacting the user.

Radiographic Chemicals are used in the developing and fixing of radiographic film. If used carelessly, they can cause contact dermatitis and irritation of the eyes, nose, throat, and respiratory system from vapors and fine particulates of chemicals. Proper manipulation of these chemicals includes the following:

- Use protective eyewear; wear heavy-duty rubber gloves to avoid skin contact. Wash off chemicals with large amounts of soap and water if contact occurs.
- Minimize exposure to dry powder during the mixing of solutions.
- Work in well ventilated areas.
- Clean up spilled chemicals immediately.
- AAAAAA Store photographic solutions and chemicals in tightly covered containers.
- Save the lead backing of dental film for recycling.
- Automatic processors have a silver recovery system.
- Portable processors have portable silver recovery systems.
- NOTE: Only Fixer solution should be introduced in to the silver recovery system.

**Pickling solutions** are strongly acidic liquids used to remove contaminants from the surface of cast metals. They contain metal ions after use; the components may be volatile. If used carelessly, these solutions may cause burning and irritation of the skin and mucous membranes, damage to the eyes, and irritation to the respiratory system. When using pickling solutions:

- Wear safety glasses for eye protection and use forceps to hold the object being pickled.
- Avoid skin contact by wearing heavy-duty rubber gloves.
- Use in well ventilated areas to minimize the formation of airborne droplets. Store solutions in covered glass containers.
- Avoid splattering; do not place hot objects into the solution.

Plaster and other gypsum products are very common dental materials used for study models, diagnostic casts, working models, etc. They contain such compounds as silica and calcium sulfate. Improper or careless handling can cause irritation and impairment of the respiratory system, silicosis, and irritation of the eyes. When handling these powders or trimming models, always wear protective evewear and a mask, minimize the exposure to powder and work in a well-ventilated area.

#### C. **SAFETY DATA SHEETS (SDS)**

Safety Data Sheets contain safety and technical data about a product. These

sheets are available online through the EH&S website:

## Environmental Health & Safety Homepage

Paper copies are maintained in the Office of Clinic Administration and in Central Sterilization. This information is available to all faculty, staff and students.

All SDS sheets must contain the following information in the same order. The detail of each sheet is determined by the extent to which the material is hazardous.

Section I: Product Identification Section II: Hazardous Ingredients

Section III: Physical Data

Section IV: Fire and Explosion Hazard Data

Section V: Health Hazard Data Section VI: Reactivity Data

Section VII: Spill or Leak Procedures

Section VIII: Special Protection Information

Section IX: Special Precautions

## D. CONTAINER LABELING

All containers must be labeled with the identity of the contents and must show hazard warnings for employee protection. In most cases the manufacturer, supplier or distributor already labels containers. The manufacturer is responsible for labeling products properly. If a product is not labeled when it arrives it must be labeled. In addition if you place the contents in another container it must be labeled.

Accepted guidelines for labeling containers are:

- 1. All chemicals **must** retain the labeling on the original containers.
- 2. For highly toxic or flammable chemicals, attach a supplemental National Fire Protection Association (NFPA) label with the appropriate number rating indicated for each hazard (Section IX of the product SDS).
- 3. Labels should list at least the chemical identity, appropriate hazard warning, and the name and address of the manufacturer. Products regulated by the FDA are exempt from the requirement.
- 4. If you transfer chemicals from a labeled container to a portable container intended only for your **immediate** use, no labels are required.

## E. HAZARD CATEGORIES OF CHEMICALS/DISINFECTANTS

Chemicals and disinfectants are divided into four categories, based on their toxicity to humans and animals. One method of expressing toxicity is the LD50: LD

means Lethal Dose and 50 refers to the dose in mgs/kg required to kill 50% of the test animals in research laboratory experiments.

The lower the LD 50 the more toxic the chemical. For example and LD 50 of 30 mgs/kg is highly toxic while an LD 50 of 600 mgs/kg would be slightly toxic. The four categories and the signal words that must appear on labels are:

## Category I: Highly Toxic LD 50 < 50 mg/kg

Labels in this category must contain the following:

- 1. The signal words "**DANGER**" and "**POISON**"
- 2. A skull and cross bones symbol
- 3. The instruction "Call a physician immediately" in case of accidental poisoning
- 4. An antidote statement

# Category II: Moderately Toxic LD 50 50-500 mg/kg

Labels in this category must contain the following:

1. The signal word "WARNING" must appear.

Category III: Slightly Toxic LD 50 > 500 mg/kg Labels in this category must contain the following:

1. The signal word "CAUTION".

#### Category IV: Relatively Non-Toxic

These chemicals have little or not toxicity. Labels in this category must contain the following:

1. The signal words are "**Keep out of reach of children**".

For certain chemicals, special caution statements such as the following may be required on the label:

- > Flammable
- Use only in closed systems
- Do not contaminate surfaces used in food preparation.

#### F. CHEMICAL/DISINFECTANT SAFETY

Safety in the use of chemicals and disinfectants begins with an understanding of some definitions:

**Toxicity:** Acute (short term) toxicity is a measure of how poisonous a chemical is after a single exposure. A chemical with a high acute toxicity can be deadly if even a very small amount is absorbed. Chronic (long-term) toxicity is a measure of how poisonous a chemical is after small, repeated doses over a period of time.

**Hazard:** is the potential for exposure to a chemical or other hazardous material. Even slightly toxic materials can be very hazardous if the person using them is careless during use and allows him or herself or others to come in contact with excessive amounts of the material.

# Storage:

Always store chemicals in their original containers with readable labels. Keep lids tight when containers are not being used. Check containers periodically for corrosion, leaks, and breaks etc. so that faulty containers may be disposed of or replaced before they constitute a hazard. Never store chemicals near food or drugs, and never permit anyone to eat in a room where chemicals are stored.

## Mixing:

Each time you use a chemical, read the directions for mixing before you open the container. Always use gloves and protective eyewear when using chemicals. When pouring, keep the container and chemical below eye level to avoid splash or spill on your glasses or face.

Measure carefully when mixing chemicals using only the amount called for on the label. Do not mix or transfer unless there is good light and ventilation.

Empty chemical containers should not be converted for storing other materials.

#### G. MANAGING EMERGENCIES WITH HAZARDOUS MATERIALS

## **Chemical Spills:**

Common sense is important in managing emergencies with hazardous materials. Eye wash stations are located within the laboratory and dental clinics. In the event of splatter to ones eyes they should be used. A first aid kit for minor injuries is located in the VC-8-218 laboratory. If it is used please inform the laboratory manager so that items may be replaced. In addition, the injury should be reported to clinic administration so an incident report may be filed.

In the event of a large chemical spill, greater than one gallon, avoid the area and

call Environmental Health and Safety 212-305-6780, or after business hours call Public Safety 212-305-7979. In the event of a small spill use the spill kits available at the dispensary on VC-7 or VC-8. If you are unsure what to do in the event of a spill please call environmental safety and a floor administrator.

A spill kit with instructions is available at each clinic dispensary on VC-7 and VC-8. Wear utility gloves, safety glasses and mask during the clean up. For spills of less than one gallon, the nature of the cleanup depends on whether the chemical is acid-based or alkaline-based.

<u>Acid-base spills:</u> Pour baking soda on the spill. After the fizzing stops sweep up the mixture and dispose of down the drain.

<u>Alkaline-base spills</u>: Absorb with the material provided in the kit. Sweep up the mixture and dispose according to environmental safety direction.

Fire:

**RACE** 

#### **FIRE SAFETY**

In Case of Fire:

Rescue

Alarm

**C**onfine

Extinguish/Evacuate

To use Fire Extinguisher:

**Pull Pin** 

Aim Hose

**Squeeze** Handle

**Sweep From Side to Side** 

For all fires notify Public Safety 212-305-7979 to report them. If the fire is small try and extinguish it using the fire extinguisher. In the event of a large fire immediately call Public Safety to report it. The department of fire safety reviews fire safety annually.

Portable fire extinguishers are designed to put out small fires or contain them until the fire department arrives. They are not meant to fight large or spreading fires. There are four different types of fires:

Type A: Ordinary combustibles such as wood, cloth, paper, rubber and

many plastics.

Type B: Flammable liquids (gasoline, oil, grease, tar) and flammable gases.

Type C: Energized electrical equipment (wiring, fuses boxes, circuit

breakers, machinery and appliances).

Type D: Combustible metals such as magnesium, potassium, etc.

Be certain you are fighting a fire with the proper extinguisher. It is particularly dangerous to use water or a Type "A" extinguisher on a grease or electrical fire.

To operate a fire extinguisher, pull the pin and aim low, pointing the extinguisher nozzle at the fire's base. Squeeze the handle to release the extinguishing material and sweep from side to side. Keep the extinguisher aimed at the base of the fire and sweep back and forth until it appears to be out.

## **Medical Emergency:**

Response to medical emergencies is contained in the Medical Emergency Response Manual. Important medical emergency numbers are listed on every phone and below:

# **Medical Emergency Numbers:**

Oral Surgery	305-8496
Cardiac Arrest	305-3333
Security	305-8100

Medical emergency carts are, along with AED's, are located on each floor of the clinics in the following locations:

VC-7 Hallway which leads to Oral Surgery
VC-8 Centrally located within the clinic
VC-9 Emergency Alcove on the left hand side at the entrance of the general clinic

**Poison Control:** 

The number to reach the poison control center in New York 212-764-7667

#### H. TRAINING:

Everyone who works within the School is potentially exposed to hazardous chemicals, materials and blood borne pathogens. Training sessions are done annually.

#### **APPENDIX**

- 1. References
- 2. Policy Statement on Infectious Diseases
- 3. Policy on Students with Blood borne Pathogens

#### 1. References:

Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008. Rutala, W.A., Weber, D.J. and the Healthcare Infection Control Practices Advisory Committee (HICPAC). CDC.

Guidelines for Infection Control in Dental Health-Care Settings-2003. MMWR. December 19, 2003/Vol. 52/No. RR-17.

Infection Control Recommendations for the Dental Office and the Dental Laboratory. JADA Vol 127. May 1996, pp 672-680.

Recommended Infection Control Practices for Dentistry 1993. MMWR May 28, 1993 Vol 41 No. RR-8. pp. 1-12

Accuracy and stability of impression materials subjected to chemical disinfection – a literature review. Kotsiomiti, E. Tzialla, A. Hatjivasiliou, K.. Journal of Oral Rehabilitation 2008 35; 291-299.

Update: Universal Precautions for Prevention of Transmission of the Human Immunodeficiency Virus, Hepatitis B Virus and other Bloodborne Pathogens in Health-Care Settings. MMWR June 24, 1988 Vol. 37 No. 24 pp. 377-388.

Recommendations for Preventing Transmission of HIV and Hepatitis B Virus to Patients During Exposure Prone Invasive Procedures. MMWR, July 12, 1991. Vol. 40 No. RR-8

"A Matter of Policy" JADA Vol. 122. August 1991 pp. 45-48.

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Myers, R., Larson, E. Cheng, B. Schwarz, A. Da Silva, K. Kunzel, C. Hand hygiene among general practice dentists A survey of knowledge, attitudes and practices. JADA Vol. 139. July 2008.

Kanjirath, P. P. et al Effectiveness of Gloves and Infection Control in Dentistry: Student and Provider Perspectives. Journal of Dental Education. Vol 73. No. 5. May 2009.

#### POLICY STATEMENT ON INFECTIOUS DISEASES

Accidental exposure to infectious disease agents in spite of all appropriate precautions is a risk faced by the population at large and by all health care professionals in particular. Health care professionals must learn and observe precautions regarding known communicable disease entities, potential "occupational exposure," and indications for using available immunizations.

I. New York State **by law** requires **all** students to provide proof of immunity to Mumps, Measles, and Rubella (MMR). Immunity to MMR must be either documented or immunization attained. Our Student Health Service will provide you with all necessary details.

# II. Hepatitis B

It is the policy of the College of Dental Medicine that all newly enrolled students must present **to the Student Health Service** an original or verified copy document of a laboratory titer test result demonstrating immunity to the Hepatitis B virus. If a student has a negative titer, i.e. has not been immunized nor has had Hepatitis B or such documentation is not available, students must do one of the following:

- a. With a physician of your selection begin the immunization process with a Hepatitis B vaccine (e.g. Recombivax or other). Immunization requires 3 injections over several months, **or**
- b. Begin the process of immunization with the Student Health Service.

Please note that a "letter" from your physician is not acceptable as evidence of sufficient antibody levels; an actual copy of the laboratory report giving exact antibody levels to the hepatitis B virus is necessary.

# III. Tuberculosis

Tuberculosis incidence has increased in recent years. It is required that health care students in high risk areas such as dentistry be tested for infection annually. The Student Health Service offers this test as part of the covered services. If a student has reason to expect infection, e.g. known exposure with compromised barrier protection or the development of symptoms, more frequent testing is available by appointment at Student Health.

Any student coming from an area of endemic tuberculosis should have a PPD performed. If a positive reaction □10cm occurs and BCG vaccine was received more than six years before, six months of isoniazid therapy should be begun.

Any student who is HIV positive should not provide care to tuberculosis patients and should have a 5 TU PPD performed. If a 2mm or greater reaction occurs, isoniazid therapy should be initiated for one year.

IV. In all such matters confidentiality and individual counseling through our Student Health Services are critical factors. For further information, please contact the Student Health Service at 305-3400.

Thank you for your attention to these essential health issues.

\*\* Student Health Services, 60 Haven Avenue, Tower I, 212-305-3400.

#### POLICY ON STUDENTS WITH BLOOD BORNE PATHOGENS

#### Introduction

The College of Dental Medicine recognizes that candidates for admission to the College or students currently enrolled in the College may present with or contract blood borne pathogen diseases (BBPD) and that a "carrier state" for such pathogens may develop. The College policy pertinent to such individuals is contained in this document. Specific matters of clinical conduct such as infection control, accidental exposure of patients and their right to know, etc. are contained in the College's "Clinical Policy and Procedure" document

#### I. Candidates for Admission

An individual applying for admission to the College of Dental Medicine who is a carrier of a blood borne pathogen (hepatitis B, hepatitis C, HIV, et.al.) may disclose such a condition. Such candidates are considered under the Americans with Disabilities Act to have a disability, and their application is addressed in that context. Specifically, individuals with disabilities which may affect their ability to meet all curriculum requirements will be individually appraised by a special ad hoc committee appointed by the Dean for that purpose. The support of the applicant's personal physician's assessment of the applicant's ability to participate in the full curriculum will be an integral part of the process. If modification of the curriculum is required to protect the applicant, colleagues, or patients, the impact of those proposed curricular modifications and their effect on the applicant's ability to meet the minimal, essential requirements for the receipt of the D.D.S. degree must be evaluated. Again, such evaluations are done in a confidential manner in consultation with the individuals designated physician and in consultation with our own Student Health Service.

II. Enrolled students who become carriers of blood borne pathogens
The ADA notes that: dentists infected with blood-borne pathogens can safely
provide dental care...[and that] blood-borne pathogen infection alone does not
justify the limiting of professional duties or automatically mandate disclosure,
provided proper infection-control procedures are implemented. Infected dental
healthcare workers must practice in compliance with CDC or equivalent
infection-control recommendations, as required by applicable law.

In keeping with policies pursuant to the Americans with Disabilities Act, each person in this category is individually assessed with supporting documentation from his or her physician as to their ability to meet requirements for receipt of the degree, bearing in mind the safety of the student, colleagues, and patients. Whether or not the individual may continue in pursuit of the degree is dependent upon the extent to which their curriculum must be modified, and whether the minimal, essential requirements for the D.D.S. degree can be met.

1. BBPD in Health Science Students: Recommendations from the Lexington Conference, November 6-7, 2000, JACH, V.50:3.

The Task Force for the Lexington Conference noted that there exists "No requirement that a patient be notified of a student's serostatus for BBP infection before the student's performing a procedure on the patient (informed consent is not deemed necessary) ...Further, such students "...should consult with their own health care provider regarding their status and their professional goals, if appropriate." Students must make any requests for curricular modification known to the appropriate personnel in the academic or clinical offices of the College. The acceptability of these requests for curricular modifications and the extent to which they can be implemented must be considered from the perspective of the institution's technical standards.

#### III. Decision Process

Respecting confidentiality of medical records, access to this information for the decision process is limited to qualified medical staff of the University, the applicant or student's personal physician, and to the ad hoc committee expressly designated for this purpose by the College.

# IV. "Right to Know"

With an exposure, the patient has just as much "right to know" as does an exposed healthcare provider, although it may not be necessary to disclose the specific identity of the source. This places both a moral and an ethical responsibility on the student (as a source of exposure) to report such exposure immediately, to report any personally known possible infectious status, and to participate in testing.