INFECTIOUS DISEASE MANUAL

DENTAL ASSISTING PROGRAM

Last Revision July 2021

Copies of this plan are available for review for employee or student in the following locations:

- Dental Assisting Lab
- Office of the Dental Assisting Department Head
- College Website at:

https://www.montgomery.edu/wp-content/uploads/dental-handbook.pdf

The Infectious Control Manual is available to the public via the Dental Assisting link on the Montgomery Community College website:
https://www.montgomery.edu/programs/dental-assisting/

Introduction

This manual contains information which outlines protocols used in the Montgomery Community College Dental Lab to ensure compliance with the Centers for Disease Control Recommended Infection Control Practices, and has been developed to supplement information contained in the Bloodborne Pathogen Manual.

The protocols outline in this manual should reduce the risk of disease transmission in the dental environment, from patient to dental health care worker (DHCW), from DHCW-to-patient, and patient-to-patient.

Based on principles of infection control, the document delineates specific recommendations related to:

- vaccination of DHCWs
- protective attire and barrier techniques
- hand hygiene
- the use and care of sharp instruments and needles
- sterilization of instruments
- disinfection of non-critical items
- cleaning and disinfection of the dental unit and environmental surfaces
- disinfection of the dental laboratory
- use and care of handpieces and other intraoral dental devices attached to air and water lines of dental units
- single-use disposables
- use of extracted teeth in dental educational setting
- disposal of waste materials
- implementation of recommendations

Vaccination for Dental Health-Care Workers

Hepatitis B vaccine is required for faculty and students attending the Dental Assisting Program that work directly with patient care. When a faculty member or student refuses the vaccine a declination form must be completed, including signature. Students that decline the vaccination may not complete clinical requirements should clinical sites refuse to allow students to participate in patient care while being unvaccinated; this may remain true if the refusal is based on the opinion of a health care physician. Clinical site rotation is a vital part of the dental assisting program.

Should a student not be vaccinated for Hepatitis B, it will be at the discretion of the clinical site if that student can safely attend the site. Any student that has not been vaccinated before enrolling into the Dental Assisting Program will be required to begin the series in the fall of each year in order to ensure adequate protection during clinical assignments which begins in March of each year. Immunization records of DTP, measles, mumps, rubella and varicella are required at the time a student enrolls into the dental assisting program. A TB skin test is also required at the time of enrollment.

Protective Attire and Barrier Techniques

At any time there is potential for contacting blood, blood-contaminated saliva or mucous membranes, clinical faculty, staff and students are required to wear gloves, masks (N95 or KN95 if preferred), protective eyewear and face shield.

Protective Attire

Gloves are located in each treatment room for faculty use; students must provide and have available at all times their own mask and gloves. Students are instructed to wash hands thoroughly (1 minute) with soap and water before donning gloves and again after removal of gloves. All faculty, staff and students must wash their hands and re-glove between patients. Face shields and/or safety glasses are also to be washed when visibly soiled and disinfected between patients.

Scrubs, including clinical jackets (disposable), are to be worn in the laboratory by all personnel when treating patients. Clinical jackets are worn in the clinical facility and should be removed during breaks, lunch and at the end of the clinical day. Disposable gowns are available for students when in attendance in the clinic site.

Barriers

All protective barriers must be changed between patients.

Surfaces not easily disinfected must be covered with a barrier and include:

- patient chair
- operating light
- curing light
- dental unit
- x-ray tube head and exposure control boxes
- air/water syringe
- HVE and saliva ejector attachments/hoses
- handpiece attachments/motors/hoses
- computer keyboard

Hand Hygiene

All clinical faculty and students must wash their hands 1-minute before and after treating each patient and after touching any object bare-handed which possibly is contaminated with blood, saliva or respiratory secretions. Antimicrobial soap is available at all hand washing stations in the laboratory facility.

Should gloves be torn, cut, or punctured, they should be removed as soon as safety permits, hands should be washed thoroughly and donning of new gloves should be accomplished before completing the procedure. Faculty, staff, or students who have weeping dermatitis or exudative lesions on their hands must refrain from all direct patient care and from handling instruments until the condition is resolved.

Use and Care of Instruments and Needles

Items contaminated with patient blood and saliva is considered potentially infectious and are handled with care to prevent injuries. Used needles are re-capped by the dentist/instructor using a one-handed “scoop” technique. A safety cardboard shield device is in place to protect the student and a recapping device is available for recapping.

Used disposable syringes, needles, scalpel blades, endodontic files, and anesthetic carpules are placed in appropriate puncture resistant sharps containers located in each operatory.

Sterilization and Disinfection of Instruments

Instruments in the dental lab are classified as critical, semi-critical and non-critical, and are sterilized or disinfected accordingly, however if the item is heat resistant it will be heat sterilized.

Critical and Semi-Critical Items

For practical purposes, instruments which fall into the semi-critical category are handled and sterilized in the same manner as those classified as critical. All non-disposable instruments which are used intra-orally are cleaned through the use of ultrasonic method, packaged and sterilized.

Individual instruments which are not included in standardized, pre-packaged tray set-ups are processed and packaged individually or in groups (such as the basic set-up) and are stored in their respective packages until ready for use. Instruments which are included in standardized tray set-ups are processed using disposable pouches/bags or cassette tray system. The systems are used in order to minimize student contact with contaminated instruments. Specific instructions for processing instruments are included in the following section of this manual.

Non-Critical Items

Instruments which come into contact only with intact skin are classified as non-critical and are cleaned and disinfected with an intermediate-level disinfectant. The manufacturer's instructions are followed in order to assure proper disinfection of these items.

Students, faculty, and staff must wear heavy duty utility gloves while processing all categories of instruments in order to minimize accidental exposure.

Biological Monitoring

Sterilization cycles are verified during the fall and spring semesters with the use of biological indicators during laboratory sessions; results are recorded and maintained in the sterilization area.

Sterilization monitoring strips are exposed during each cycle of sterilization. Indicator strips are dated and maintained in the sterilization records.

Instrument Processing

Students must use the following steps in preparing and transporting contaminated items to the sterilization area:

- Heavy duty utility gloves must be worn while handling contaminated items.
- Disposable items must be removed from the tray or cassette prior to handling items to be sterilized.
- Should an *instrument cassette* be the choice of use, instruments must be arranged in order of use with cassette lid closed and locked, and placed into the transport container with the lid secured.
- Should an *instrument tray* be the choice of use, the contaminated items must be placed into the transport container with the lid secured.

When contaminated items reach the sterilization area students must use the following steps to process items for sterilization:

- When using an *instrument cassette*, the cassette is removed from the transport container and placed directly into the ultrasonic cleaner.

- Should *items* be *loose* in the transport container, the *items are to be placed into the ultrasonic instrument cage*, followed by the cage being placed into the ultrasonic cleaner.

- Prior to operating the ultrasonic cleaner, the lid must be placed to cover the unit.

The ultrasonic unit should be allowed to work as follows:

- 10 minutes for *loose instruments* (caged)
- 15 minutes for *cassettes*

- Following completion of the ultrasonic cycle, the lid is removed from the unit and the ultrasonic basket is lifted out of the unit and placed into the sink.

When retrieving contaminated items from the ultrasonic cleaner it is <u>UNACCEPTABLE</u> to reach hands into the unit. Removing items by lifting the basket out of the unit is the only acceptable method.

- With ultrasonic basket placed in sink, the *cassette* or *instrument cage* can be lifted out of the basket and rinsed using room temperature water.

- The rinsed *cassette* may be placed on drying mat.

- The *instrument cage* is opened and instruments are "emptied" out of cage and place on the drying mat.
- *Cassette* can be opened and processing indicator strip is prepared and placed inside of the cassette. The cassette is closed and prepared for sterilization.
- *Loose instruments* can be bagged in an appropriate *sterilizing pouch/bag* with indicator strip and prepared for sterilization.
- *Cassettes* may be bagged or wrapped and placed in the sterilization unit.
- *Pouches/bags* must be sealed appropriately and placed in the sterilization unit, paper side down onto sterilization tray.
- *Pouches/bags should be initialed prior to sterilization*

Upon completion of sterilization of item(s), they are then placed in designated clean areas of the lab.

Cleaning and Disinfection of Clinical Surfaces and Items

Mask, eyewear and heavy duty utility gloves will be worn by students and clinic personnel when treatment rooms or related equipment and clinical surfaces are being cleaned and disinfected.

After treatment of each patient and at the completion of each day, clinical surfaces; countertops, dental unit, patient chair, stools, assistant table, and any items connected to these surfaces, will be cleaned and disinfected using the spray-wipe-spray technique or by the use of appropriate disinfecting wipes (one wipe for cleaning, a second wipe for disinfecting). In promoting the educational process and recommended published protocols, all surfaces, whether covered with barriers or not will be cleaned and disinfected using the same technique.

Cleaning and disinfecting of clinical surfaces will be accomplished with an intermediate level disinfectant. Disinfecting solutions are available in each operatory and are utilized according to the manufacturer's directions in order to ensure proper disinfection.

Disinfection of Dental and Lab Materials

Laboratory materials are cleaned and disinfected prior to being handled in the laboratory area of the facility and include:

- impressions,
- bite registrations
- removable prostheses
- orthodontic appliances

A foil liner is used as a barrier protection for the lathe tray and only "Single use" amounts of pumice are used at the lathe.

If at any time rag wheels become contaminated, they must be rinsed under hot water, placed in a sterilizing bag and autoclaved.

Use and Care of Dental Devices Attached to Air and Water Lines

Handpieces MUST be sterilized after each patient use.

Burs MUST be removed from all handpieces prior to sterilization.

All high-speed handpieces should be cared for using the following steps:

- While attached to the dental unit handpiece hose, handpiece is flushed with water for 1 minute while pressing the rheostat
- Detach handpiece from the dental unit; transport to sterilization area
- Wipe the head and fiber optic of the handpiece with disinfecting gauze removing all blood and debris
- Attach the handpiece to the Assistina (cleaning & lubricating device) and allow the unit to complete one cycle
- Remove the handpiece from the Assistina; bag and sterilize in the autoclave only
- Upon completion of sterilization cycle return sterile handpiece to the appropriate designated storage area

All low-speed handpiece attachments should be cared for using the following steps:

- Detach the handpiece from the motor; transport to sterilization area

- Wipe the attachment with disinfecting gauze, removing all blood and debris
- Place one drop of oil in the opening of the end of the attachment
- Place attachment in sterilization bag and sterilize in autoclave only
- Upon completion of sterilization cycle return sterile handpiece attachment to the appropriate storage area.

Disposables

All prophy angles, cups, and brushes used in routine coronal polishing procedures are disposable.

All HVE tips, saliva ejectors, and A/W syringe tips are disposable.

As stated prior, all protective barriers are single-use only, disposable, and must be changed between patients.

Dental Burs

Burs must be sterilized or discarded following each patient use.

Contaminated burs are gathered on the bottom of the magnetic bur block, placed in the transport container and transported to the sterilization area without cross- contamination of sterile burs on bur block.

Contaminated burs are placed in a bur basket and placed in ultrasonic cleaner. Bur block is retrieved from transport container, cleaned, and disinfected with spray-wipe-spray technique.

Upon completion of the ultrasonic cycle, bur basket is removed from ultrasonic in previously stated manner and rinsed under warm running water at the sink. Burs are then removed from the bur basket and bagged for sterilization.

Burs that are to be disposed of must be disposed of into an appropriate sharps container.

Use of Self-Contained Water Bottles

A continual disinfectant product is used within the self-contained water bottles. Faculty will monitor replacement dates for product. When removing water bottles from dental units the disinfecting “straw” must not be touched or cross-contaminated.

Use of Extracted Teeth in Dental Educational Setting

Extracted teeth are considered infectious and must be sterilized prior to handling. Teeth to be used for educational purposes must be scrubbed with an antimicrobial soap and immersed in a 1:10 solution of sodium hypochlorite, bagged, and sterilized in the autoclave. Teeth containing amalgam must not be sterilized in a heat sterilizer, however, will be allowed to remain in a disinfectant for 24 hours.

Disposal of Waste Materials

Contaminated gloves and mask must be placed in the biohazard trash receptacle in the area in which it is generated. All contaminated patient items are to be placed in a plastic bag, tied and placed in a biohazard receptacle. Contaminated trash will be gathered each day and disposed of in the trash dumpster. In addition, disposable gowns are placed in a biohazard receptacle and disposed of each day.

Sharps containers that have been filled to the appropriate amount designated by the manufacturer will be removed, closed, and picked up by the appropriate disposal company.