University of Jordan

Faculty of Dentistry

Infection Control Policy

Clinical Sites and Support Laboratories

Jordan University Hospital

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Infection Control and Safety Committee

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List of Abbreviations

AIDS: Acquired Immuno-Deficiency Syndrome

HBV: Hepatitis B Virus

HIV: Human Immuno-deficiency Virus

HSV: Herpes Simplex Virus

JUH: Jordan University Hospital

PPE: Personal Protective Equipment

TFA: Treatment Focus Area

I. Introduction

Infection control in health care continues to be the subject of intensive research and debate. The need for an effective infection control program has always been an essential and integral part of the dental practice. Over the years, dentistry, with rare documented exceptions, has been successful in limiting the transmission of infectious diseases during patient treatment. Exceptions have involved the transmission of hepatitis B virus (HBV), herpes simplex virus (HSV), and human immunodeficiency virus (HIV).

An effective infection control policy requires the cooperation of the faculty, students, and staff of the Faculty of Dentistry of the University of Jordan. In order for this to be achieved, education, demonstration, monitoring and evaluation must take place, with the faculty, staff and the Infection Control and Committee of the Faculty of Dentistry taking the primary responsibility for infection control in the clinical areas. Students, who are the primary providers of care, will have their actions monitored regularly to determine whether or not infection control procedures have been followed and if they are effective.

Dental school clinics by nature have problems not encountered in other clinical settings or in private practice. At the Faculty of Dentistry, there are about 300 providers of patient care. **Since it is impractical to effectively supervise such a large group continuously, the success or failure of the infection control program ultimately rests with each individual student, faculty, and staff person. Occasionally, objections are raised regarding the cost of additional infection control supplies and procedures in dental practice. Cost is relatively minor if it is compared to ethical, legal and financial costs of a dentist or a patient developing infectious diseases in general, and hepatitis and acquired immune deficiency syndrome (AIDS) in particular, through dental practice.**

II. Mission

The Infection Control and Safety Committee is dedicated to the promotion of a healthy and safe environment by preventing the transmission of infectious agents between faculty, staff, students, and patients. This will be accomplished in an efficient and cost effective manner by a continual assessment and modification of services based on regulations, standards, scientific studies, internal evaluations and guidelines, as well as general policies and regulations followed in the Jordan University Hospital (JUH).

III. General Policy Provisions

A. Written pre-clinical, clinical, and laboratory protocols should be established and enforced in order to ensure adequate asepsis, infection and hazard control, and hazardous-waste disposal. These protocols should be consistent with JUH guidelines, and must be provided to all faculty, students, and appropriate support staff.

B. All dental personnel are ethically obligated to provide patient care with compassion and respect for human dignity. No dental personnel may ethically refuse to provide dental care solely on the basis of a patient's infectious disease status, specifically the HIV or HBV.

C. All research personnel and clinical laboratory supervisors shall recognize their responsibility for implementing University guidelines to protect laboratory workers from hazards incumbent in handling human blood, secretions, specimens, tissues and materials contaminated with blood or other body secretions.

D. Hepatitis B, hepatitis C, or HIV/AIDS testing cannot be required for anyone except in the event of an exposure incident. For patients whose medical signs or symptoms are consistent with hepatitis B, hepatitis C, HIV/AIDS, or other infectious disease, with or without associated medical history, the appropriate referral for medical consultation and follow-up should be made.

E. The results of such testing and related diagnosis will remain confidential. It is the responsibility of each faculty staff, employee or student who has access to this information to ensure its confidentiality in accordance with JUH policies and guidelines.

F. The Infection Control and Safety Committee of the Faculty of Dentistry will be responsible for conducting annual evaluations for compliance with infection control manual.

IV. Goals and Objectives

The goals of the Infection Control Program are to:

a) Protect the health of all patients and dental health-care personnel.
b) To prevent transmission of disease during dental treatment by using the concept of universal precautions.

The objectives of Infection Control Program are to:

A. Protect yourself from occupationally acquired infections.
B. Reduce the number of cross infecting pathogens.

C. Break the chain of infection.
D. Apply standard precautions.
E. Treat every patient as if they are potentially infectious for any blood-borne disease.
F. Protect patients from cross contamination.
G. Protect dental professionals from liability from negligence and/or non-compliance with national and JUH guidelines.
H. Requiring current immunization against hepatitis B and other appropriate diseases for all clinical personnel as deemed necessary by national and JUH standards of infection control. At the Faculty of Dentistry, current immunizations include hepatitis B.
I. Students and staff in the application of these principles will use education and training in the principles and practices of infection control in dentistry to stimulate compliance.
J. Preventing, parenteral, mucous membrane and non-intact skin exposures of patients and dental health care workers to blood and other body fluids visibly containing blood.
K. Controlling contamination of items and personnel in clinical environments by consistent use of aseptic techniques, including the use of barrier techniques.
L. Confining the spread of contamination by utilizing the TFA concept supplemented by aseptic techniques.
M. Using, fully feasible, intrinsically safe substances, procedures, or devices as primary methods to reduce workers exposure to harmful substances.
N. Monitor compliance by care providers with each aspect of the infection control program.
O. Require the development of safe and effective work habits in the pre-clinical laboratory so that proper training in the classroom will enhance student performance in the clinic.

V. Universal Precaution

According to the concept of Universal Precautions, all human blood, human blood components, products made from human blood and certain other materials are treated and handled as if known to be infectious for HIV, HBV and other blood-borne pathogens.

VI. Standard precautions

Dental patients and DHCP can be exposed to pathogenic microorganisms including cytomegalovirus (CMV), HBV, HCV, herpes simplex virus types 1 and 2, HIV, Mycobacterium

tuberculosis, staphylococci, streptococci, and other viruses and bacteria that colonize or infect the oral cavity and respiratory tract. These organisms can be transmitted in dental settings through 1) direct contact with blood, oral fluids, or other patient materials; 2) indirect contact with contaminated objects (e.g., instruments, equipment, or environmental surfaces); 3) contact of conjunctival, nasal, or oral mucosa with droplets (e.g., spatter) containing microorganisms generated from an infected person and propelled a short distance (e.g., by coughing, sneezing, or talking); and 4) inhalation of airborne microorganisms that can remain suspended in the air for long periods.

Infection through any of these routes requires that all of the following conditions be present: a pathogenic organism of sufficient virulence and in adequate numbers to cause disease; a reservoir or source that allows the pathogen to survive and multiply (e.g., blood); a mode of transmission from the source to the host; a portal of entry through which the pathogen can enter the host; and a susceptible host (i.e., one who is not immune). Occurrence of these events provides the chain of infection. Effective infection-control strategies prevent disease transmission by interrupting one or more links in the chain.

Standard precautions integrate and expand the elements of universal precautions into a standard of care designed to protect healthcare providers and patients from pathogens that can be spread by blood or any other body fluid, excretion, or secretion. Standard precautions apply to contact with 1) blood; 2) all body fluids, secretions, and excretions (except sweat), regardless of whether they contain blood; 3) non-intact skin; and 4) mucous membranes. Saliva has always been considered a potentially infectious material in dental infection control; thus, no operational difference exists in clinical dental practice between universal precautions and standard precautions.

VII. Pre-Enrollment/Pre-Employment Immunizations

Immunization against hepatitis B is required for all faculty, staff and students who are at risk for occupational exposure to blood and other potentially infectious materials. It is also recommended that all students and clinical personnel be vaccinated against measles, mumps, and rubella (MMR), DPT, polio, varicella, and influenza if they are not already immune.

VIII. Needlestick and Puncture Wound precautions

The dental practitioner and staff are continuously exposed to potential percutaneous injury by beveled tubular needles or sharp hand instruments that have been contaminated by blood or saliva. This danger cannot be eliminated, but adherence to the following recommendations will limit the occurrence of injury.

A. Never recap a needle by moving the needle toward another body part, especially the other hand.
B. Never recap a needle by a cooperative effort between two people.
C. Transfer double-ended instruments as close to the handle center as possible.
D. Never break bend a used hypodermic needle by hand.
E. Do not use a hemostat when recapping needles.
F. Do place needles and expended sharps into the puncture resistant containers next to your unit. The anesthetic cartridges should also be discarded into these containers.
G. Do use special care when exchanging or transferring instruments during and after patient treatment.

International guidelines direct that sharps containers be placed as close to the treatment area as practical and that clean-up procedures minimize the handling and transport of blood contaminated disposables. To comply with these regulations, the Faculty of Dentistry has installed sharps containers in the vicinity of each dental unit. The management of needles, cartridges and other sharp-edged devices should comply with the following recommendations:

A. Use of the Anesthetic Syringe:

   The basic rule that will eliminate needlestick injury is: "**never move the exposed needle tip toward an unprotected body part.**"

   This sounds very simple but it is complicated by distractions and altered movements that occur during patient treatment. Ideally, you should never recap a contaminated needle. Place the uncapped needle pointing downward directly in the sharps container. However, you might occasionally need to recap a needle. For example, if the sharps container is not located near the unit, or if there are several people between you and the sharps container, you need to recap the needle for their safety as well as for your own. There are two procedures recognized to give adequate safety during the recapping (recovering) procedures: (a) the scoop method and (b) the needle cover holder method.

a) The scoop method is to simply leave the cover on a flat surface; insert the needle into the opened end; and lift up so that the cover will fall into place over the needle. Grasp the cover near its opened end with the thumb and index finger of the free hand and press the cover into its tight interlocking position. This can also be accomplished by scooping the cover onto the needle and pressing against the end side until the cover is tight in position. The scoop method may sound simple but it is sometimes difficult to execute.
b) The needle cover holder method requires that the cover be placed into a holding device that will either protect the hand that holds the device or the hand at risk will be distanced from the cover.

B. Disposal of Single Use Sharp-edge Devices:
All sharp-edge devices contaminated during patient treatment must be discarded into the sharps container so that patients, dental assistants and housekeeping staff are protected from inadvertent or negligent percutaneous injury. Restorative matrix bands, stainless steel crowns, preformed bands, copper bands, full-crown matrices, precast posts, burs, endodontic files, orthodontic wires and other similar devices that are contaminated by blood and/or saliva when they are tried in the mouth should never be returned directly to the dispensing box.

C. Any sharp items that are small and delicate and become spent during extended use must be discarded into the sharps container. They are never to be disposed of into the regular waste system.

D. Disposal of irrigation syringes:
These are plastic disposable syringes that are used during periodontal and endodontic treatment. The irrigation solution that remains in the barrel should be expressed into the sink and the entire unit, with needle intact, dropped into the sharps container.

E. Maintenance of the Sharps Container:
The following recommendations should be followed when the sharps containers are used:
a) Never place water or any other liquid into the container. Microorganisms cannot grow in the absence of water, or other moisture.
b) Never place cotton rolls, gauze sponges, paper products, or any non-sharp items into the sharps container.
c) Notify the faculty personnel at the dispensary when the sharps container is full. Housekeeping will be notified to replace the full container with an empty one.

d) If it becomes necessary, inform patients or visitors not to touch or manipulate the sharps containers. Failure to comply with your request should be reported to the supervising faculty.

IX. Incident Reporting and Post-Exposure Follow-Up

A. Treatment of Exposure Site

Wounds and skin sites that have been in contact with blood or body fluids should be washed with soap and water; mucous membranes should be flushed with water. No evidence exists that using antiseptics for wound care or expressing fluid by squeezing the wound further reduces the risk of blood-borne pathogen transmission; however, the use of antiseptics is not contraindicated.

B. Exposure Reporting, Post-Exposure and Follow-Up

If you experience a sharp injury while performing a patient procedure or are exposed to a contaminated instrument during post-procedural clean-up, the following should occur:

a) Stop patient treatment.
b) Excuse yourself from the patient.
c) Report to the faculty member that you are working with. Bring the patient's chart with you.
d) Complete an incident form that is available at the dispensary. The incident form includes:
    1) Your name and personal information.
    2) Date and time of the incident.
    3) Details of the procedure being performed, including where and how the exposure incident occurred. If related to a sharp device, the type of the device and how and when in the course of handling the device the exposure occurred.
    4) Details of the exposure, including the type and the amount of fluid or material and severity of the exposure.
    5) Details of the exposure source (containing HBV, HSV, or HIV).
    6) Details about the exposed person (hepatitis B vaccination).
e) After completing the incident report, you will be sent to the Emergency Department, with a copy of the incident report.

X. Personal hygiene

Personal hygiene is an essential part of any infection control program and must be adhered to by all faculty, staff and students who have clinical duties and/or come into contact with blood, body fluids, and tissues.

Particular attention must be paid to the hair, facial hair, hands, and skin. Hair and nails harbor higher levels of bacteria than the skin because they are not cleaned after each patient encounter, thus leaving residual contamination. Jewelry should be removed for the same reasons.

A. Hair: Hair should be cleared away from the face to prevent contamination from spray or aerosol produced during dental procedures.

B. Jewelry: Rings and decorative nail jewelry can make donning gloves more difficult and cause gloves to tear more readily. Thus, jewelry should not interfere with glove use. Any jewelry that interferes with patient care should not be worn in the clinic.

C. Nails: Nails must be maintained in a short, clean, and healthy fashion. The rationale for this policy is that the subungual region of the nail harbors the majority of microorganisms on the hand. **Removing debris from the fingernails requires vigorous brushing and running water; additional effort is necessary for longer fingernails.** In addition, long fingernails may scratch or gouge the patient during the provision of treatment. Artificial nails should not be worn within the patient treatment area. In addition, cracked or chipped nail polish is not allowed to be worn in the clinic.

D. Dental health care workers with injured or cracked skin, erosions, eczema, weeping dermatitis on the hands should exercise caution when cleaning the hands and skin areas. The use of mild soaps and lotion will help resolve these problems. In addition, a change in glove products may be necessary.

XI. Hand-washing and Hand Hygiene

Hand-washing is the single most important means of preventing the spread of infection in the health care setting. An effective procedure will prevent many infections that are

acquired from the transmission of organisms on the hands. The use of tepid (lukewarm) water to clean the hands is effective in preventing the cornscratch used in most gloves from penetrating the skin.

Frequent washing of the hands may result in drying and cracking of the skin. Use of tepid water can help to reduce the loss of oils from the skin and lessen the exposure of open pores of the skin from glove powder. In addition, tepid water minimizes the shedding of microorganisms from the subsurface layers of the skin. An antimicrobial hand-wash should be used to provide a residual antimicrobial effect under gloves. This residual effect on the skin has a long lasting antimicrobial effect on the skin that improves with use that is more frequent. Heavy stain and/or debris should be removed from the skin and under the nails either the night before or early morning of the day of patient treatment. This will lessen injury to the skin just prior to patient contact.

Hand-washing between patients is of the utmost necessity, with the purpose of removing microbial contamination acquired during recent patient contact or contact with contaminated objects. It is mandatory that the following guidelines regarding hand-washing be followed at the Faculty of Dentistry:

Hands should be washed at the following times:

A. At the beginning of the day.
B. When hands are visibly soiled.
C. Before and after contact with all patients.
D. Before and after contact with mucous membranes, blood or body fluids, secretions, or excretion.
E. After contact with inanimate sources likely to have become contaminated during patient treatment.
F. Between patient contacts.
G. Before donning gloves.
H. After glove removal.
I. Before leaving the laboratory.
J. Before and after utilizing the rest rooms.
K. At the end of the day.

The recommended procedure for hand-washing for routine dental procedures in the clinic and for routine laboratory work with contaminated items is as follows:

A. Remove all jewelry, with the possible exception of a thin smooth wedding band and wristwatch.

B. Remove any visible debris from the hands and arms with an appropriate cleaner. Do not abrade the skin by using a brush or sharp instrument.

C. Wet the hands and wrists under running tepid water.

D. Dispense a sufficient amount of antimicrobial soap to cover the hands and wrists.

E. Rub the soap gently onto all areas, with particular emphasis on areas around the nails and between the fingers; rotate fingertips of one hand into the opposite palm, repeat on the other hand. Wash both wrists. Continue for a minimum of 15 seconds before rinsing under tepid water. Repeat twice.

F. Dry hands thoroughly with paper towels.

NOTE: The use of alcohol hand rub rinse instead of hand washing with soap and water is acceptable in situations where the hands are not soiled with physical dirt. Hands must be free from dirt for the alcohol to be effective.

The recommended procedure for alcohol hand rubs is as follows:

A. Assuming hands are **not soiled**,; apply enough alcohol to cover the entire surface of hands and fingers.

B. Rub hands vigorously together causing friction between fingers, around and under fingernails, the back of the hands, wrists and palms until dry. This procedure should take at least 10-15 seconds.

C. Wash hands with soap and water after 10-12 uses of alcohol hand rub and when hands feel sticky.

XII. Personal Protective Equipment

Personal protective equipment (PPE) is designed to protect the skin and the mucous membranes of the eyes, nose, and mouth of dental health care workers from exposure to blood and other potentially infectious materials. Use of rotary dental and surgical

instruments and air-water syringes creates a visible spray and aerosol that contains primarily large-particle droplets of water, saliva, blood, microorganisms, and other debris. Aerosols can remain airborne for extended periods and can be inhaled. Appropriate work practices, including use of dental dams and high-velocity air evacuation, should minimize dissemination of droplets, spatter, and aerosols.

Primary PPE use in oral health-care settings includes gloves, surgical masks, protective eyewear, face shields, and protective clothing. **All PPE should be removed before dental health care worker leave patient-care areas.** Reusable PPE should be cleaned with soap and water, and when visibly soiled, disinfected between patients. General work clothes are neither intended to protect against a hazard nor considered PPE.

A. Gloves:
   Gloves serve as the primary method of personal protection for the health care worker's hands. Different materials are used in dental practice, such as latex, and nitrile. Non-sterile and sterile products are available. Sterile gloves are generally used for more extensive, invasive procedures.

   Once patient treatment has started, if the dental health care worker must leave the Treatment Focus Area (TFA) to retrieve other materials the gloves must be removed and hands washed or cover gloves (disposable gloves) must be placed over the treatment gloves to prevent the spread of contamination to areas outside of the TFA. <u>If gloves are contaminated with blood they should be discarded rather than covered with cover gloves when leaving the TFA.</u>

   Gloves must be replaced when they are contaminated or when their integrity is compromised.

   Wearing gloves does not eliminate the need for hand-washing. Hand hygiene should be performed immediately before donning gloves. Gloves can have small, unapparent defects or can be torn during use, and hands can become contaminated during glove removal. In addition, bacteria can multiply rapidly in the moist environment underneath gloves, and thus, the hands should be dried thoroughly before donning gloves and washed again immediately after glove removal.

B. Masks:
   A mask must be worn to protect the mucous membranes of the nose and mouth since the microbes originate from the patient's saliva and/or blood

and may be infectious. The mask should be changed between patients and whenever it gets wet. The following recommendations are to be followed:

a) Adjust the mask so that it fits snugly against the face.
b) Keep the beard and mustache groomed so as not to interfere with the proper fit.
c) **Do not touch the front surface of the mask at any time during patient treatment.**
d) Remove the mask as soon as treatment is over; do not leave it dangling from the neck or pushed up onto the head.
e) When removing the mask, it should be handled by the ties or elastic band without touching the mask.

C. Protective Eyewear:

Unlike the skin and mucous membranes the conjunctiva does not form a protective barrier against infectious microorganisms. HBV and HSV are only examples of dentally related microbes that can cause infection locally or systemically when introduced into the eye. Also, flying metal particles, calculus and polishing agents during dental treatment can injure practitioners' eyes. **Consequently, it is mandated that protective eyewear be used whenever aerosol and spatter is created. Protective eyewear must include side shields.**

XIII. Providing an Aseptic Environment

Aseptic in its origin refers to the absence of decay due to microorganisms. The term is used in dental setting to describe a patient treatment area free of significant numbers of pathogenic microorganisms. This is easier to create when the inanimate treatment area, or dental operatory, is considered separately; however, difficulties arise when the patient and health care providers are considered. The treatment area is an environment in which specific techniques to insure asepsis must be designed to address (A) the inanimate surfaces; (B) the human element; and (C) the combined or the TFA.

A. The Inanimate Environment

The inanimate environment includes the surface areas where patient treatment takes place. In most treatment areas of the dental school it includes all surfaces between the panel dividers that separate each unit. Since the extent of contamination within the treatment area is highly variable, it is beneficial to subdivide the work area based on degree or likelihood of contamination.

a) Area A.1: High degree or likelihood of contamination occurs onto the surface areas of the TFA that is an imaginary sphere of 1 meter in diameter within the patient's mouth as the point of origin. This includes the instrument tray and underlying counter, the console hoses, the upper portion of the dental chair and the dental lamp.
b) Area A.2: Medium degree or likelihood of contamination occurs onto the remaining counter surface of the dental unit that is occasionally used for support items.
c) Area A.3: Low degree or likelihood of contamination occurs onto the remaining surfaces that include the drawer, cabinet doors, top of cabinet, sinks, panels, etc.

B. The Human Element:

If surfaces, instruments, and other materials have been prepared properly, the only likely potential sources for infection transmission are the health care worker and the patient. During known or planned contacts with microorganisms such as those occurring during dental treatment, the chain of infection can be easily interrupted by hand-washing, and the use of barriers. The chain is inadvertently supported, however, when blood-contaminated instruments and devices are mishandled and are not properly cleaned and disinfected.

C. The Treatment Focus Area:

The concept of the treatment focus area (TFA) combines the A.1 inanimate area with the human element to be recognized as the potential danger zone because of the high degree of microbial contamination that occurs in this area during patient treatment. **The dental health care worker must develop an awareness to never move the contamination outside this area.** In addition, aerosol production, splatter, talking, impression taking, air stream, and other activities increase the airborne contamination. These dangers can be neutralized or reduced by using personal barriers, the high volume evacuation suction and a pretreatment mouth rinse. But they cannot be totally eliminated and precautions must be taken continuously. **REMEMBER… whatever goes into or comes out of the TFA must be decontaminated.**

D. Beyond The Treatment Focus Area:

Hands, instruments and devices must be decontaminated or discarded when they are moved out of the TFA.

Specifically:

a) Gloved Hands: **NEVER leave the TFA with gloves used for patient treatment. Use cover gloves to bring materials from dispensary, and to bring soiled instruments to the dispensary.**

b) Impressions: Rinse under running water in the sink until all saliva and/or blood is removed then use the impression disinfectant solution before showing the impression to the instructor. After an instructor approves the impression, put the impression in a pack containing the disinfectant solution before taking it to the laboratory.

c) Instruments and Trays: Rinse instruments to remove any visible debris. Spray the instruments with disinfectant, dry them and send them to sterilization.

d) Needles (anesthetic): follow the guidelines present in the section regarding needles management. After completion of the treatment, the syringe should be rinsed, dried, and sent back to the dispensary. All accessories should be discarded into the sharps container.

e) Needles (irrigation): These needles should remain in an isolated and clear spot of the work area attached to the syringe and are not recapped. After use, the entire syringe-needle complex is placed into the sharps container. Residual irrigating solution is deposited into the drain of the sink before it is placed into the sharps container.

f) Anesthetic cartridges: When empty, they are removed from the syringe and deposited into the sharps container. If anesthetic solution remains in the carpules after patient treatment, it should be deposited into the drain of the sink.

g) Matrix band: Remove the matrix band from the mouth after use and place it directly into the sharps container.

h) Crown forms: Those tried in the mouth but not used are disposed of directly into the general trash.

i) Stainless steel crowns and aluminum shell crowns or copper bands: those that are not used are placed into a paper cup, disinfected and returned to the dispensary. The dispensary personnel will prepare the returned items and

send them for sterilization. After the items are sterilized they can be returned back to the dispensary box.

XIV. Preparing, Receiving, Treating, and Dismissing the Patient

Care From the Patient's Perspective:

From an infection control viewpoint the patient is entitled to:

1) A student practitioner who is concerned for the patient's health and safety;
2) Instruments and devices that are sterile, or, (when indicated) have been properly disinfected;
3) An environment in which the presence of extraneous pathogenic microorganisms has been minimized;
4) Health care providers who are free from acute (symptomatic) disease or are wearing acceptable protective devices to eliminate the risk of transmitting disease.

A. Preparing for Treatment of a Patient
    a) Inspect the entire dental unit for dust, stains and other potentially contaminating debris.
    b) While wearing gloves, clean any visible stained areas with detergent, remove the detergent with towel soaked in tap water, and dry wet surfaces with a disposable paper towel.
    c) Wipe the TFA and adjacent surfaces with disinfectant including exposed surfaces of the air-water syringe, the saliva ejector and the high-speed evacuation system hoses.
    d) Then beginning with the area first wiped, allow each surface to dry and then re-wipe.
    e) Flush handpieces, suction tubing, ultrasonic scalers, and air-water syringes for at least 30 seconds.
    f) Place disposable coverings (self adhering plastic cover) to prevent contamination of surfaces.

NOTE: Never place your packages, excess clothing, or bags on the benches or any other areas that can be used to place the support items, or that can be used during patient treatment.

B. Receiving Your Patient
    a) Greet your patient in the reception area. Be sure the patient is dressed comfortably and that excess clothing is hung in the appropriate areas. Large packages may be placed in the designated area of the operatory.
    b) Seat the patient and make necessary chair adjustments for patient comfort.

c) Place patient's drape.
d) Open instrument tray and arrange instruments on appropriate work surface. **Never open instrument trays before seating the patient.**

<u>NOTE:</u> Never ask your patient to look for you in the clinic halls. Patients should enter treatment areas only when they are accompanied by their treating students.

C. Patient Treatment
   a) Treat all patients as potentially infectious.
   b) Provide the patient with a pair of safety glasses to be worn during the procedure.
   c) Wash hands and wrists at the unit and don gloves. **Once gloved, touch only the patient and barrier covered areas or areas that have been cleaned and disinfected.**
   d) Disposable gloves must be worn whenever touching the mucous membranes, blood and/or saliva of the patient. After touching the patient, the gloves become contaminated. **If contaminated gloves are to be removed during treatment, never put them again even for the same patient.**
   e) **Be continuously conscious of restricting contamination to the TFA.**
   f) **Do not touch the patient chart or radiographs with contaminated gloves.** If an entry has to be made in the record during treatment, remove treatment gloves or cover gloves must be used.
   g) Processing of X-ray films must be done using new gloves, other than those used for patient treatment. Once processing is done, new gloves should be donned before continuing patient treatment.
   h) Dropped instruments are never to be picked-up or reused; if the instrument is critical to the treatment provided obtain a sterilized replacement instrument.
   i) A rubber dam should be used whenever possible. The rubber dam has been proven an excellent barrier against the spread of infectious material by splatter.
   j) Disposable items should be discarded immediately to avoid contamination of other items.
   k) **Never place items on the top of panel dividers between dental units. This presents a hazard for your safety as well as that of others around you. All items taken from the dispensary should be brought back once they are not needed anymore.**
   l) Never leave bottles and containers of materials open while they are not in use. This can lead to their contamination and the loss of their chemical, mechanical, and physical properties.

m) Once the instrument tray has been opened, all instruments, including those that have not been used (or those supposed not contaminated) should be properly disinfected and sterilized.

D. After Patient Treatment

a) Rinse all sterilizable instruments, removing visible debris, dry them, and prepare them for sterilization.
b) Remove treatment gloves and don new gloves for the decontamination of the dental unit.
c) Decontaminate and clean the patient's protective glasses.
d) Wipe stained areas of the TFA with detergent and remove it with towel soaked in tap water.
e) Wipe-dry-wipe hand contact work areas and other TFA surfaces with disinfectant.
f) Dispose waste in the trash receptacles in the dental unit. **Never discard sharps, metals, or cartridges into general trash.** Dispose them into the sharps container provided in the vicinity of the unit. **Never dispose waste in trash receptacle that is full.** If the trash receptacle is full, inform the dispensary personnel.
g) Place chair upright and bring it to its highest position and align the dental lamp.

NOTE: Infection control will be strictly monitored and enforced in all clinical and support laboratories areas. Any violation will be documented in a special form that will be available for faculty members in the dispensary boxes. Disciplinary actions will be taken in accordance with the policy decided by the Faculty Council.

XV. Support Laboratories

The incidence of HBV seromarkers among dental laboratory technicians is over double that of the general population. It is thus highly important to prevent cross-contamination in the laboratory. The concept is to clean and disinfect everything before it goes to the laboratory. This must be done at the same time it leaves the TFA. Similarly, everything must be cleaned and disinfected before it leaves the laboratory and before entering the TFA. **Instruments used in the laboratory should never be used for patients, and vice versa.** Instruments, devices, and surfaces in the laboratory should be cleaned after each use and disinfected at the end of the day.

A. Laboratory Precautions

Impressions, trays, fixed and removable prostheses, etc. should be rinsed thoroughly under tap water to remove saliva and blood; they then should be disinfected using the impression disinfectant solution. Before leaving the TFA they should be packed in a pack containing the disinfectant solution.

In addition to disinfecting these items before transporting them to the laboratory, the following procedures should be followed in the laboratory:

a) **Coats used for patient treatment should never be worn in the laboratory. Special coats have to be used while working in the laboratory.**
b) Gloves that are used during patient treatment should be discarded before starting work in the laboratory. New gloves should be worn in the laboratory, and, when indicated, special laboratory gloves should be worn. **No gloves should be worn to or from the laboratory.**
c) Laboratory instruments should be cleaned and disinfected between uses.
d) Place paper barriers to maintain cleanliness and asepsis whenever practical. Discard barriers after use.
e) Protective eyewear should be worn when appropriate. **Protective eyewear used during patient treatment is never to be used in the laboratory.**
f) Clothing should be protected from spatter and airborne debris as much as possible.
g) Do not leave any poured impressions, casts, or trays on the surfaces in the laboratory. Special surfaces are designated to be used during the setting time. **Any casts, impressions, or trays found in the support laboratories on surfaces other than those designated for material setting will be discarded.** Additionally, poured impressions left for long time after their setting will be discarded.
h) **Laboratory work surfaces should be cleaned and disinfected with a disinfectant when work activities are complete.**

NOTE: Students who do not cooperate with the maintenance of the support laboratory can be denied access to the laboratory.

XVI. Sources and References

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5. Infection Control Manual. School of Dental Medicine, Case Western Reserve University, July 2009.

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7. Infection Control and Prevention Policies. Jordan Univeristy Hospital, 2009.