مجموعة البدر المطور الطبية
ALBADR DEVELOPED MEDICAL GROUP

Manual For Infection Control Services

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Introduction:

- The Infection Control Unit in community health medical complex is committed to provide clear direction to help everyone create and maintain a healthy and safe environment for patients as well as healthcare worker, and visitors also to minimize infection and infection potential and prevent or reduce the risk of disease transmission by instituting and maintaining measures for identification, prevention, investigation, reporting and control of infection.

- It is the ethical and legal responsibility of every healthcare worker to protect their patients, colleagues and themselves from acquiring infection by practicing safe patient care practice. However, is everyone's responsibility and the Infection Control Unit cannot ensure a safe workplace without the help and support of everyone in the medical com

- The Infection Control manual have been developed to clarify the standard of care and increase awareness regarding to prevention and control of infectious diseases, as well as to increase compliance with safety measures, particularly Standard Precautions. The Infection Control

- Manual constitutes the infection control, policies and procedures to be implemented and monitored for safe practicing at community health medical complex

- The Infection Control Unit believes that continuing infection control education is essential for the professional growth, development and orientation of all new employees.

Mission:
Providing medical service with high efficiency and optimal use of resources and technologist in an entity concerned with professional ethics, patients' rights and the promotion of social responsibility.

Vision:

To be the first destination in providing health care according to quality and patient safety standards.

Goals:

- **Safety:** commitment to maintaining a safe environment for patients, visitors, and staff.
- **Respect:** respect time, patients, employees and society.
- **Efficiency:** confidence in the capabilities and skills of the work team.
- **Cooperation:** working as a team to achieve the goals.
- **Integrity:** integrity in work and dealing in accordance with values and laws.

Scope of Services
1. Unit Description
Infection control department is a supervising educating and implementing Infection Control activities in Emergency room (ER), Laboratory, radiology, dental clinics, and sterilizations unite and Physiotherapy and Monitoring Healthcare Associated Infections (HAI), making recommendation and submit to Administration. This department is headed by Infection Control officer followed by nurse assisting.
2. Population
Infection control services are including patients – families – visitors and volunteers its services to all surrounding departments in the complex, where services are provided to all groups.
3. Services Provided
Infection Control officer: Responsible to monitor and ensure Infection Control Activities throughout the complex. • Educate the Healthcare Workers on Standard & Expanded precautions, Waste Management and prevention of needle stick injury. • Produce reports to infectious diseases and notify to Directorate and to reduce Healthcare Associated Infections HAI. • Control of waste disposal.

Hand Hygiene:

This policy is a guide to all healthcare personnel to ensure full understanding of application of hand hygiene.

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of Hand Hygiene.
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

- This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues.

Definitions:

Alcohol-based hand rub: an alcohol-containing preparation designed for application to the hands to reduce the number of viable microorganisms on the hands.

Hand hygiene: a general term that applies to hand washing, antiseptic hand wash, antiseptic hand rub, and surgical hand antisepsis.

Hand washing: washing hands with plain (i.e., non-antimicrobial) soap and water.

Procedure:

Indications for Hand Hygiene:

- Wash hands with soap and water when visibly dirty or visibly soiled with blood or other body fluids or after using the toilet.
- Use an alcohol-based hand-rub as the preferred means for routine hand antisepsis in all other clinical situations if hands are not visibly soiled.

- If alcohol-based hand rub is not obtainable, wash hands with soap and water

Perform hand hygiene:

- Before and after touching the patient.
- Before handling an invasive device for patient care, regardless of whether or not gloves are used
- after contact with body fluids or excretions, mucous membranes, non-intact skin, or wound dressings
- If moving from a contaminated body site to another body site during care of the same patient.
- After contact with inanimate surfaces and objects (including medical equipment) in the immediate vicinity of the patient.
- After removing sterile or non-sterile gloves.
- Soap and alcohol-based hand rub should not be used concomitantly.

Hand Hygiene Techniques:

Hand Hygiene Technique with Alcohol-Based Formulation:

Duration of the entire procedure: 20-30 seconds

- Apply a palm full of alcohol-based hand rub and cover all surfaces of the hands.
- Rub hands palm to palm;
- Right palm over left dorsum with interlaced fingers and vice versa
- Palm to palm with fingers interlaced
- Backs of fingers to opposing palms with fingers interlocked
- Rotational rubbing of left thumb clasped in right palm and vice versa
- Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa
- Once dry your hands are safe.

Hand Hygiene Technique with Soap and Water:

Duration of the entire procedure: 40-60 seconds.

- ❖ Wet hands with water
- ❖ Apply enough soap to cover all hand surfaces
- ❖ Rub hands palm to palm
- ❖ Right palm over left dorsum with interlaced fingers and vice versa
- ❖ Palm to palm with fingers interlaced
- ❖ Backs of fingers to opposing palms with fingers interlocked
- ❖ Rotational rubbing of left thumb clasped in right palm and vice versa
- ❖ Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa
- ❖ Rinse hands with water
- ❖ Dry hands thoroughly with a single use towel
- ❖ Use towel to turn off faucet;
- ❖ Your hands are now safe.

(5) Moments of hand hygiene:

- Before touching a patient:
- Before clean/ aseptic procedure
- After body fluid exposure risk
- After touching a patient:
- After touching patient surroundings

***Do not wear artificial fingernails or extenders when having direct contact with patients.**

***Keep natural nails short.**

Hand Rub Technique

Hand Washing Technique

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds

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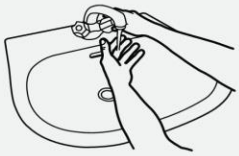
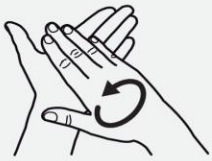


Wet hands with water;

1

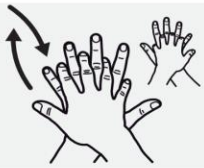
Apply enough soap to cover all hand surfaces;

2



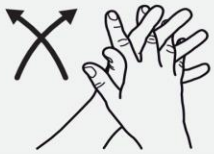
Rub hands palm to palm;

3



Right palm over left dorsum with interlaced fingers and vice versa;

4



Palm to palm with fingers interlaced;

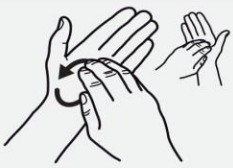
5

Backs of fingers to opposing palms with fingers interlocked;

6

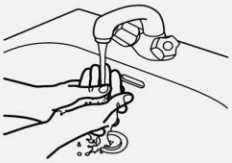
Rotational rubbing of left thumb clasped in right palm and vice versa;

7



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

8

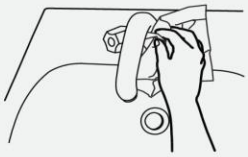


Rinse hands with water;

9

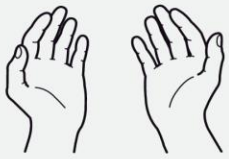
Dry hands thoroughly with a single use towel;

10



Use towel to turn off faucet;

11



Your hands are now safe.

World Health Organization | Patient Safety — A World Alliance for Safer Health Care | SAVE LIVES Clean Your Hands

May 2009

Five Moments of Hand Hygiene:

Personal protective equipment PPE :

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of use of personal protective equipment.

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of Personal Protective Equipment (PPE).
- To provide a framework for education of healthcare personnel in the Personal Protective Equipment (PPE).

Scope:

- This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and the staff are trained and assessed in these issues.

Definitions:

Personal Protective Equipment (PPE): specialized clothing or equipment worn by an employee for protection against a hazard (e.g., gloves, masks, protective eyewear, and gowns).

Procedure:

Gloves:

- Wear gloves when there is potential contact with blood, body fluids, mucous membranes, non-intact skin or contaminated equipment.
- Wear gloves that fit appropriately (select gloves according to hand size).
- Do not wear the same pair of gloves for the care of more than one patient.
- Do not wash gloves for the purpose of reuse.
- Perform hand hygiene before and immediately after removing gloves.
- Do not touch your face or adjust PPE with contaminated gloves.
- Do not touch environmental surfaces except as necessary during patient care.

Change gloves:

- During use if torn and when heavily soiled (even during use on the same patient)
- After use on each patient.
- Discard in appropriate receptacle.
- Never wash or reuse disposable gloves.

Gowns:

- Wear a gown to protect skin and clothing during procedures or activities where contact with blood or body fluids is anticipated.
- Do not wear the same gown for the care of more than one patient.
- Remove gown and perform hand hygiene before leaving the patient's environment (e.g., exam room).

Facemasks (Procedure or Surgical Masks):

- Wear a facemask when there is potential contact with respiratory secretions and sprays of blood or body fluids (as defined in Standard Precautions and/or Droplet Precautions).
- Masks should fully cover the nose and mouth and prevent fluid penetration.
- Masks should fit snuggly over the nose and mouth. For this reason, masks that have a flexible nose-piece and can be secured to the head with string ties or elastic are preferable.

Goggles, Face Shields:

- Wear eye protection for potential splash or spray of blood, respiratory secretions, or other body fluids.
- Personal eyeglasses and contact lenses are not considered adequate eye protection
- Goggles should fit snuggly over and around the eyes or personal prescription lenses.
- The face shield should cover the forehead, extend below the chin, and wrap around the side of the face.

Respirators:

- Wear N95-or higher respirators for potential exposure to infectious agents transmitted via the airborne route
- All healthcare personnel that use N95-or higher respirator should be fit

tested every (2) years according to MOH requirements.

Donning PPE:

- Always perform hand hygiene before donning PPE.
- The gown should be donned first.
- The mask or respirator should be put on next and properly adjusted to fit; remember to fit check the respirator.
- The goggles or face shield should be donned next.
- The gloves are donned last.
- Keep in mind, the combination of PPE used, and therefore the sequence for donning, will be determined by the precautions that need to be taken.

Removing PPE:

There are two sequences for removing PPE

1) The first sequence:

- The gloves are considered the most contaminated pieces of PPE and are therefore removed first.
- The face shield or goggles are next because they are more Cumbersome and would interfere with removal of other PPE.
- The gown is third in the sequence, followed by the mask or respirator.

2) The second sequence:

- Gowns and gloves should are removed first.
- The second item is goggles or face shield.
- Followed by mask or respirator.
- Perform hand hygiene immediately.

How to Remove Gloves:

- Using one gloved hand, grasp the outside of the opposite glove near the wrist.
- Pull and peel the glove away from the hand.
- The glove should now be turned inside out, with the contaminated side now on the inside.
- Hold the removed glove in the opposite gloved hand.
- Slide one or two fingers of the ungloved hand under the wrist of the remaining glove.
- Peel glove off from the inside, creating a bag for both gloves.
- Discard in waste container.

Remove Goggles or Face Shield:

- Using ungloved hands, grasp the “clean” ear or headpieces and lift away from face.
- If goggle or face shield are reusable, place them in a designated receptacle for subsequent

reprocessing. Otherwise, discard them in the waste receptacle.

Removing Gown:

- Unfasten the gown ties with the ungloved hands.
- Slip hands underneath the gown at the neck and shoulder, peel away from the shoulders.
- Slip the fingers of one hand under the cuff of the opposite arm.
- Pull the hand into the sleeve, grasping the gown from inside. Reach across and push the sleeve off the opposite arm.
- Fold the gown towards the inside and fold or roll into a bundle. (Only the "clean" part of the gown should be visible.)
- Discard into waste or linen container, as appropriate.

Hand hygiene:

- Hand hygiene should be performed immediately after removing PPE.
- If your hands become visibly contaminated during PPE removal, wash hands before continuing to remove PPE.
- Wash your hands thoroughly with soap and warm water or, if hands are not visibly contaminated, use an alcohol-based hand rub.

Sequence for putting on Personal Protective Equipment (PPE)

Personal Protective Equipment

HOW TO PUT ON
PERSONAL PROTECTIVE EQUIPMENT

1 CLEAN YOUR HANDS
- Alcohol-based hand rub is the preferred method for cleaning hands when hands are not visibly soiled.
- Clean between fingers, backs of hands, fingertips & thumbs.
- Clean hands for 20-30 seconds.

2 PUT ON GOWN
- Select appropriate size and type.
- Wear gown and keep opening to the back.
- Secure neck and waist.
- If gown is too small, use two gowns:
  - Gown #1 ties in front.
  - Gown #2 ties in back.

3 PUT ON MASK
(Use N95 for AEROSOL generating procedures and in case of AIRBORNE)

4 PUT ON EYE PROTECTION
- Position goggles over your head and secure using the earpieces or headband.
- Position face shield over face and secure to brow with headband.
- Adjust to fit comfortably.

5 PUT ON GLOVES
- Select correct type and size.
- Put on gloves.
- Extend gloves over cuffs of isolation gown.

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Ministry of Health

Do you have any questions?
/MOHPortal /SaudiMOH /SaudiMOH
www.moh.gov.sa/CCC

How to safely remove Personal Protective Equipment (PPE):

How to remove PPE (BEFORE)

HOW TO REMOVE
PERSONAL PROTECTIVE EQUIPMENT

BEFORE LEAVING PATIENT'S ROOM

① TAKE OFF GLOVES UNDER THE WRIST

1. Grasp outside edge near wrist.
2. Peel away from hand, turning glove inside out.
3. Hold in opposite gloved hand.
4. Slide ungloved finger under the wrist of the remaining glove.

5. Peel off from the inside, creating a bag for both gloves.

6. Discard in garbage.

② TAKE OFF GOWN

1. Unfasten ties.
2. Peel gown away from neck and shoulders.

3. Turn contaminated outside toward the inside.

4. Fold or roll into a bundle.
5. Discard in garbage.

③ CLEAN YOUR HANDS FOR 20-30 SECONDS

1. Alcohol-based hand rub is the preferred method for cleaning hands when hands are not visibly soiled.

2. Clean between fingers, backs of hands, fingertips and thumbs.
3. Duration of the entire procedure is 20-30 seconds.

4. Refrain from using patient's sink.

④ TAKE OFF EYE PROTECTION

1. Grasp ear or head pieces with ungloved hands.
2. Lift away from face.

3. Place in garbage or clean reusable eye protection.

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Ministry of Health

Do you have any questions?

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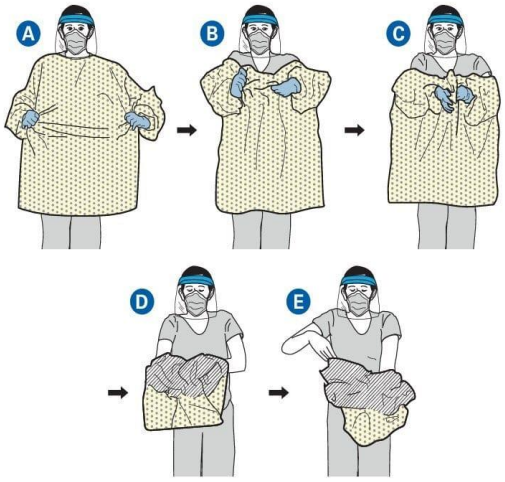
How to safely remove personal protective equipment (PPE) Example 2

HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 2

Here is another way to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

1. GOWN AND GLOVES

- Gown front and sleeves and the outside of gloves are contaminated!
- If your hands get contaminated during gown or glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands
- While removing the gown, fold or roll the gown inside-out into a bundle
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands. Place the gown and gloves into a waste container

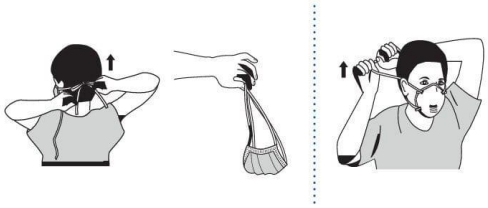


2. GOGGLES OR FACE SHIELD

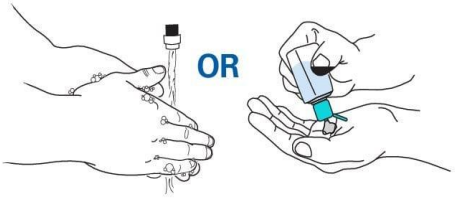
- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band and without touching the front of the goggles or face shield
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

3. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



4. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE

CS250672-E

Standard Precautions

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of use of Standard Precautions.

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of standard precautions.
- To provide a framework for the education of healthcare personnel in the infection prevention and control

Scope:

- This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and the staff are trained and assessed in these issues.

Definitions

- **Standard Precautions:** are the minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where health care is delivered.
- **Transmission-based precautions**: a set of practices that apply to patients with documented or suspected infection or colonization with highly transmissible or epidemiologically important pathogens for which precautions beyond the standard precautions are needed to interrupt transmission in healthcare settings.

Procedure:

- The standard precautions should be applied to apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where health care is delivered.
- These practices are designed to both protect and prevent from spreading infections among patients.

Standard Precautions include:

- Hand Hygiene: (Refer to policy)
- Use of personal protective equipment (e.g., gloves, masks, eyewear). (Refer to policy)
- Respiratory hygiene/cough etiquette. (Refer to policy)
- Sharps safety. (Refer to policy)
- Sterilization of instruments and devices: (Refer to policy).
- Cleaning and disinfection of environmental surfaces (Refer to policy).

Respiratory Hygiene and Cough Etiquette:

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of respiratory hygiene and cough etiquette

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of respiratory hygiene and cough etiquette.
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues.

Definitions:

Respiratory Hygiene and Cough Etiquette: a protocol used to prevent the transmission of respiratory infections in the facility, the following infection prevention measures are implemented for all potentially infected persons at the point of entry and continuing throughout the duration of the visit.

Procedure:

- Identifying Persons with Potential Respiratory Infection: Facility staff remain alert for any persons arriving with symptoms of a respiratory infection
- Signs are posted at the reception area instructing patients and accompanying persons to:
  - Self-report symptoms of a respiratory infection during registration
  - Practice respiratory hygiene and cough etiquette (technique described below) and wear facemask as needed.

Availability of Supplies:

The following supplies are provided in the reception area and other common waiting areas:

- Facemasks, tissues, and no-touch waste receptacles for disposing of used tissues.
- Dispensers of alcohol-based hand rub.

Respiratory Hygiene and Cough Etiquette:

- All persons with signs and symptoms of a respiratory infection (including facility staff) are instructed to:
- Cover the mouth and nose with a tissue when coughing or sneezing
- Dispose of the used tissue in the nearest waste receptacle
- Perform hand hygiene after contact with respiratory secretions and contaminated objects/materials

Masking and Separation of Persons with Respiratory Symptoms:

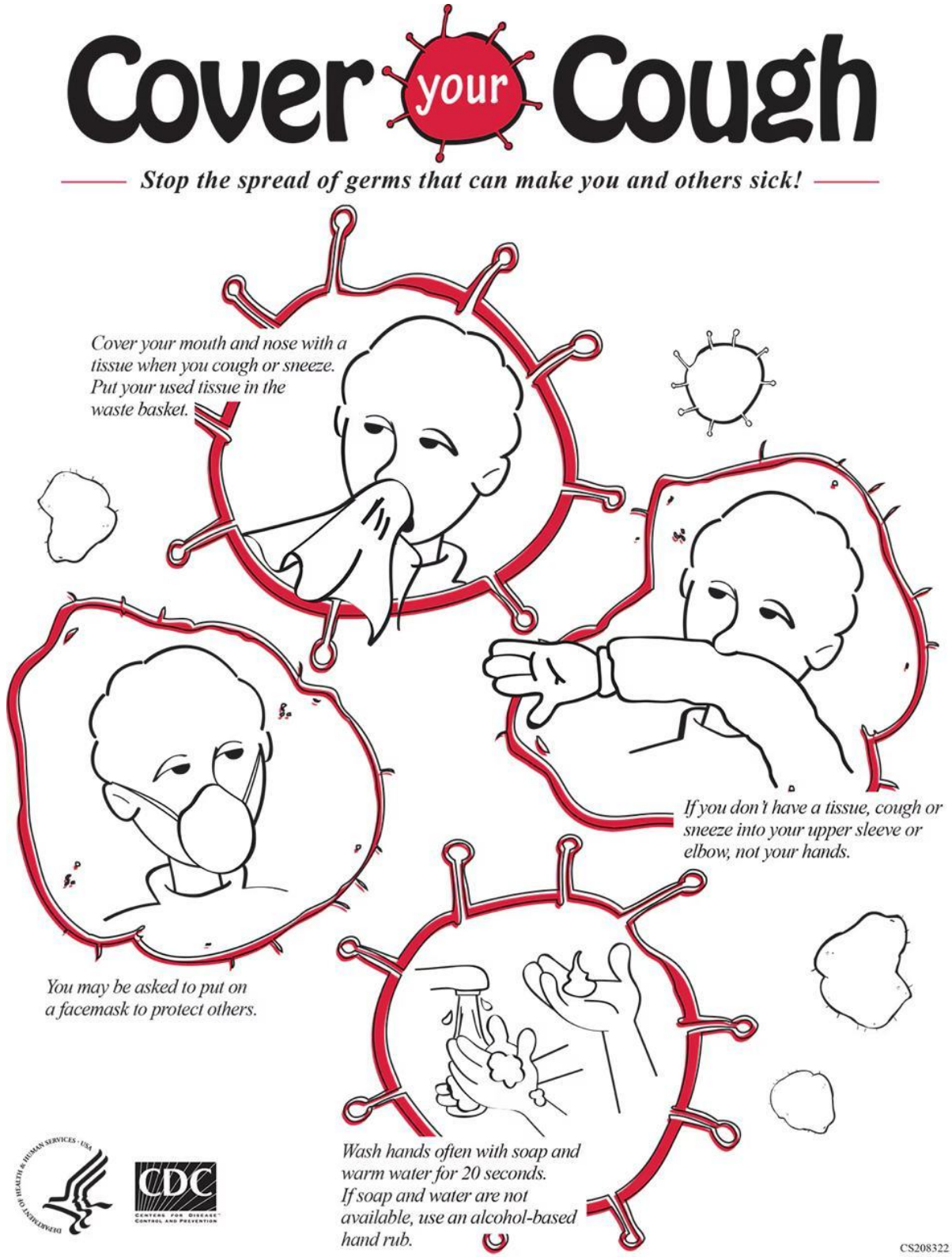
If patient calls ahead:

- Have patients with symptoms of a respiratory infection come at a time when the facility is less crowded or through a separate entrance, if available
- If the purpose of the visit is non-urgent, patients are encouraged to reschedule the appointment until symptoms have resolved
- Upon entry to the facility, patients are to be instructed to don a facemask (e.g., procedure or surgical mask).
- Alert registration staff ahead of time to place the patient in an exam room with a closed door upon arrival.

If identified after arrival:

- Provide facemasks to all persons who are coughing and have symptoms of a respiratory infection
- Place the coughing patient in an exam room with a closed door as soon as possible, if an exam room is not available, the patient should sit as far from other patients as possible in the waiting room.
- Healthcare personnel observe Droplet Precautions, in addition to Standard Precautions, when examining and caring for patients with signs and symptoms of a respiratory infection.
- These precautions are maintained until it is determined that the cause of the symptoms is not an infectious agent that requires Droplet or Airborne Precautions.
- All healthcare personnel are aware of facility sick leave policies, including staff who are not directly employed by the facility but provide essential daily services.
- Healthcare personnel with a respiratory infection avoid direct patient contact; if this is not possible, then a facemask should be worn while providing patient care and frequent hand hygiene should be reinforced.
- Healthcare personnel are up-to-date with all recommended vaccinations, including annual influenza vaccine.

Respiratory Hygiene and Cough Etiquette:


Cover your Cough
Stop the spread of germs that can make you and others sick!
Cover your mouth and nose with a tissue when you cough or sneeze. Put your used tissue in the waste basket.
If you don't have a tissue, cough or sneeze into your upper sleeve or elbow, not your hands.
You may be asked to put on a facemask to protect others.
Wash hands often with soap and warm water for 20 seconds. If soap and water are not available, use an alcohol-based hand rub.
CDC
CS208322

COUGH ETIQUETTE

Isolation Precautions

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of use of Isolation Precautions in health practice.

Purpose:

- To prevent and minimize the risk of infection in health care settings.
- To promote awareness for each healthcare personnel in the importance of isolation precautions.
- To provide a framework for the education of healthcare personnel in the infection prevention and control

Scope:

- This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and the staff are trained and assessed in these issues.

Definitions:

ISOLATION PRECAUTIONS: To describe the principles of isolation precautions needed to further reduce or prevent the spread of epidemiologically significant or highly transmissible pathogens when standard precautions alone are insufficient.

PROCEDURES:

Nurses will take the following steps:

- Initiate isolation precautions as specified and/or based on clinical assessment of the patient in consultation with the attending physician and/or infection control practitioner (ICP). (Microbiology reports may or may not support the clinical assessment.)
- Arrange for the required isolation supplies for the room; place the appropriate isolation precautions sign on the room door
- Give the necessary instructions to patients

Contact isolation

The patient should be in a single room.A neutral pressure room is indicated.

- Put a contact isolation sign on the door.
- Keep the door closed

- All healthcare workers must wear the appropriate PPE (gown and gloves) when anticipating contact with patient or the patient's environment.

- ❖ Change the gown and gloves between patients even if both patients share a room and both are under Contact Precaution

Droplet precautions

- ❖ Use a single room. A negative air pressure room is not indicated
- ❖ Place a droplet sign on the door
- ❖ Wear appropriate PPE (surgical mask, gloves, and gown) as needed.
- ❖ A surgical mask is required within 3 feet of the patient.
- ❖ The "5 moments of hand hygiene" must be followed by all personnel entering and leaving the patient care area.
- ❖ Place a surgical mask on the patient if he/she must leave the room.
- ❖ Inform the destination department/facility regarding droplet precautions when the patient is being transported.

Airborne Isolation Precautions

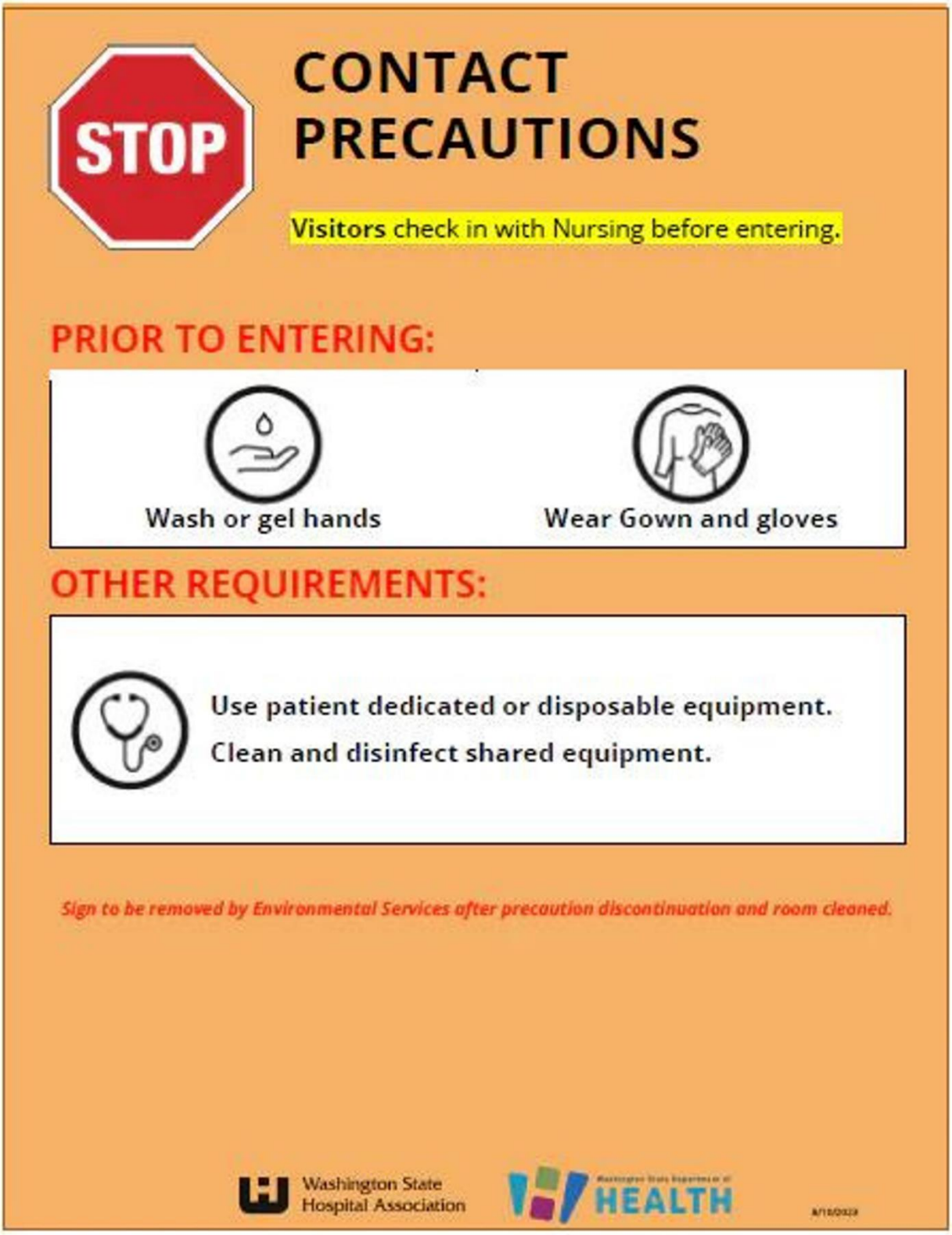
- ❖ Use a single room with a negative air pressure system. Put the Airborne Isolation sign on the door.
- ❖ Keep door closed at all times except when entering or leaving the room.
- ❖ Healthcare worker must wear an N95 mask/respirator before entering the room when a patient has suspected or confirmed pulmonary MTB and remove the mask when outside the room.

Transporting Patients on Isolation Precautions

- ❖ Place a surgical mask on the patient if he/she must leave the room.
- ❖ Instruct patient on respiratory hygiene and cough etiquette.
- ❖ Limit the transport of patients to essential medical purposes.
- ❖ Put the Airborne Isolation sign.
- ❖ Instruct patients on respiratory hygiene and cough etiquette.
- ❖ Check with staff for their immune status to the disease and instruct them regarding the use of protective apparel and conduct in the isolation room.

- **Sequence for Donning Personal Protective Equipment**) (Refer to **PPE** policy)
- **Sequence for Removing PPE .** (Refer to **PPE** policy)

Contact Precautions:



Droplet precautions :

DROPLET PRECAUTIONS

Visitors check in with Nursing before entering.

For source control, ask patient to don mask if tolerated when healthcare workers/visitors are present.

PRIOR TO ENTERING:

Wash or gel hands

Wear mask

Wear eye protection
Face shield or goggles

OTHER REQUIREMENTS:

Must use patient dedicated or disposable equipment. Clean and disinfect shared equipment.

If performing an *Aerosol Generating Procedure (AGP)*, consider wearing a higher-level protection mask or respirator and keep door closed. Follow Facility Policy for performing AGPs.

Wear gown and gloves if contact with secretions is likely.

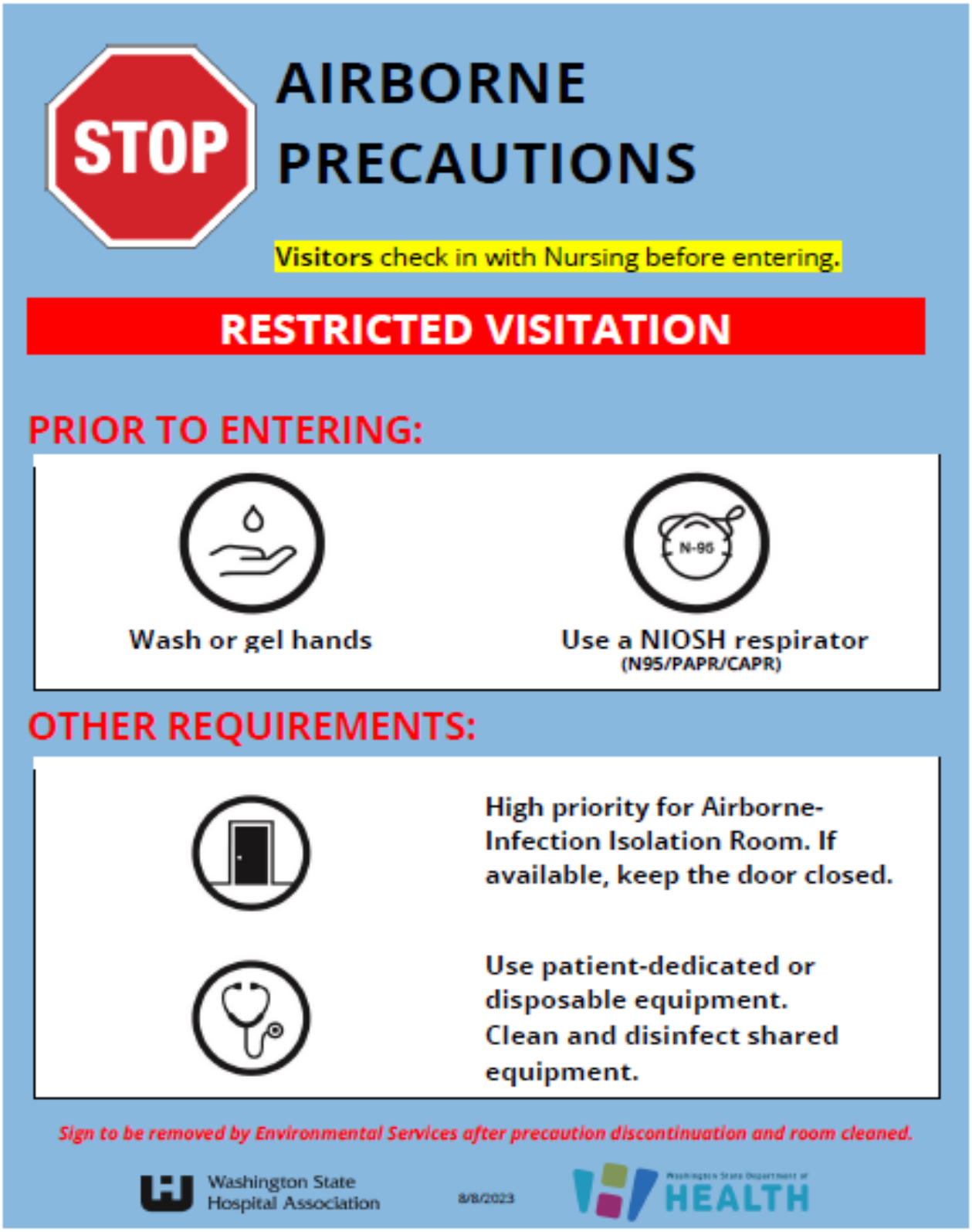
Sign to be removed by Environmental Services after precaution discontinuation and room cleaned.

Washington State Hospital Association

8/10/2023

Washington State Department of HEALTH

Airborne isolation :



TYPE	PPE	ROOM TYPE	INFECTION/CONDITION
AIRBORNE 	N 95 OR Respirator Gloves Perform hand hygiene.	Private room. With portable heap filter.	*Tuberculosis (TB) * Measles. *Varicella * Herpes zoster disseminated.
CONTACT 	Gown Gloves Perform hand hygiene.	Private room	Clostridium difficille * Adenovirus* Multidrug-resistant * RSV * Lice.* * Enterovirus * Scabies Herpes Zoster * Hepatitis A *Organism(MRSA,VRE,ESBL).
DROPLET 	Surgical mask Gloves Perform hand hygiene.	Private room	Influenza A or B * Meningitis* Pertussis * RSV * *Mumps * Rhinovirus *Adenovirus * Rubella

Safe Handling and Disposal of Sharps:

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of Safe Handling and Disposal of Sharps in the community.

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of Safe Handling and Disposal of Sharps
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues

Definitions:

Sharps: Items that have corners, edges or projections that can cut or puncture human skin. Common examples of sharps include but not limited to hypodermic or intravenous needles and syringes with attached needles, razor blades, scalpel blades, scissors, knives and broken glass.

Safe Needle Device: A safe needle device incorporates engineering controls to prevent needle stick injuries before, during or after use through built-in safety features.

Sharps Container: Yellow colored container that is rigid, leak proof, and puncture-proof with a lid and labeled with the universal biohazard symbol or the word "BIOHAZARD". They are available in three different sizes as small medium and large

PROCEDURES

Safe handling:

- The health care workers should be aware of the hazards posed by needle stick injuries and should use the sharps safely and improve work practices as follows:
- Avoid the use of needles where safe and effective alternatives are available.
- Plan safe handling and disposal before beginning any procedure using needles.
- To avoid injuring themselves or others, keep the sharps container as close to where you are working as possible.
- Do not bend, shear, break, recap, remove needles from disposable syringes, or manipulate before disposal.
- After giving an injection, dispose of the syringe with needle still attached i.e. the total unit, into the sharps container.
- Dispose of the used sharp immediately after use, in the Sharps container.

- Do not pick up broken glass with hands, use mechanical means such as a brush and dustpan, tongs, or forceps.
- Sharps containers must not be filled more than three fourths full, to avoid the risk of injury when introducing further items.
- When 3/4 full, the sharps container must be sealed, the container identified by a label mentioning the department, type of waste, person in charge, time and date and sent for incineration.
- Make every effort to PREVENT injury or exposure, by careful handling and safe disposal of sharps, by covering unhealed cuts on the hands with waterproof adhesive plaster and by wearing gloves or eye protection when performing procedures in which exposure to contamination with blood, etc. is anticipated.
- Report all needle stick and other sharps-related injuries promptly (refer to Management of Needle Prick Injuries/Blood and Body Fluid Exposures Policy to ensure that you receive appropriate follow up care.
- Tell your supervisor about hazards from needles that you observe in your work environment.

Example of Needle Recapping Device.

This shows recapping a needle by hand

Do not do this.

This shows the one-handed scoop technique, a safe way to recap a needle

Sharps Container

Needle stick protocol:

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of Management of Needle Prick Injuries, Blood & Body Fluid Exposure in the community.

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of management of Needle Prick Injuries, Blood & Body Fluid Exposure
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues

Definitions:

Other Potentially Infectious Materials: means human body fluids: semen, vaginal secretions, cerebrospinal fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

Percutaneous injury: a needle pricks injury or cut with a sharp object.

PROCEDURES :

As a part of staff safety, the following protocol should be followed when a staff is exposed to needle stick during work:

1. Encourage the wound to bleed, ideally by holding it under running water.
2. Clean he wound by running water/soap.
3. Apply water proof dressing.
4. In case of splashes to the eyes, nose or mouth irrigate with clean water, saline or sterile irrigants.
5. Details of patient and methods of contact who had used the needle should be obtained and assess him for present of any infectious disease.
6. Baseline laboratory investigations should be done for Both patient and staff who had needlestick HIV, Hepatitis B & C.
7. A prophylactic dose of Hepatitis –B vaccine should be given to injured staff.
8. A follow up examination and lab investigations should be repeated 6 months later to injured staff.
9. A written report should done after doing the previous first aid step as and sent through clinic manager to clinics medical Director and quality unit .

10. Infection control Coordinator should be contacted through mobile immediately to ensure appropriateness of first aid procedures
11. As received the report by quality department Manager to ensure compliance with protocol.

Blood / Body Fluid Spill Management

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of Blood / Body Fluid Spill Management in the community.

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of Blood / Body Fluid Spill Management
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues

Definitions:

Blood/body fluid spill: The spill of uncontained biological material (human blood, body fluid, secretions and excretions) on any surface in the premises that may lead to unsafe exposure conditions.

Spill Kit: Box that contain all necessary tools to handle all spills that might occur within the CENTER

PROCEDURES

The nursing or medical staff will deal with the spill immediately and alert the housekeeping before it dries up and the following procedure should be followed:

Spots or small spills (up to 10cms)

Put on disposable gloves, and other PPE as applicable. Refer to **Standard Precautions Policy.**

- Wipe the area immediately with paper towels.
- Clean with water and detergent or available disinfectant (70%alcohol/chlorhexidine spray).
- Rinse and dry the area.
- Discard disposable gloves in the yellow plastic bag.
- Wash and dry hands thoroughly. Refer to **Hand Hygiene** policy.

Large spills (over 10cms)

- Close off the spill area to traffic using a 'Wet floor' or "Bio-Hazard "sign.
- Evacuate the area when necessary (spills from patients diagnosed or suspected cases of hemorrhagic fever, SARS or avian/swine flu).
- Locate the 'spill kit'.
- Put on disposable gloves, and other PPE as applicable.
- Collect broken glasses or other sharps, if present, by using forceps & place it in a sharp container. Refer to **Safe Handling and Disposal of Sharps Policy.**
- Contain the spill with enough paper towels to absorb.
- Use a pan or scraper to pick up material.
- Flood the spill with freshly prepared (1:10 dilution) chlorine bleach (1part bleach to 9 parts water) for a contact time of at least 10 minutes.
- Use paper/cloth towels to soak up and remove all spilled blood& chlorine bleach. Push the towels from the edge of the spill in to the center.
- Discard bleach-soaked towels in the yellow plastic bag.
- Wash the area with detergent and water.
- Leave the affected area clean and dry.
- Remove gloves by grasping the cuffs on the inside of your wrist and pulling the gloves off inside out.
- Disposable gloves in the yellow plastic bag.
- Wash and dry hands thoroughly.
- If reusable rubber gloves are used wash in soap and water and disinfect by soaking them in a mild (1:100) bleach solution for at least 2 minutes. Hang them to air dry.
- Thoroughly clean the bucket and mop after use and store dry.
- Fill up an OVR- occurrence variance report form. (HERF) Refer to Occurrence Variance& Sentinel Event Reporting Policy.
- Replace Single-use items in the spills kit after each use of the spills kit.

Blood/body fluid spill

SPILL KITE:

Waste Management

This policy is a guide for all dental healthcare personnel to ensure full understanding on the best practice of Waste Management in the community.

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of Waste Management.
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unit heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues.

DEFINITIONS:

Waste generator: any place which act or process produce hazardous waste materials which need special handling and processing.

Regular waste or no- hazardous medical waste :refers to the waste that found in municipal waste generated by administrative departments , general cleaning work within healthcare facilities and items not contaminated (i.e. not dripping) with blood or body fluids . this waste constitutes the larger portion of healthcare waste and treated in away similar to general municipal waste**.**

Hazardous Medical Waste: waste generated from contaminated sources or potentially contaminated with infectious, chemical, or radioactive sources that poses potential health risk.

Infectious Waste: waste that contain biological agents that might spread any of the infectious diseases due to its load of bacteria, viruses, parasites, and fungi.

Chemical Waste: waste that contains solid, liquid or gaseous chemicals resulting from diagnostic, therapeutic, laboratory activities or those used in cleaning and disinfecting or sterilizing procedures.

Sharps Waste: waste that contains sharp items such as vaccine glass vials and needles, scalpels, lancets, razors, broken glass or any other sharp objects that has a potential to cut or punctures through the body

PROCEDURES:

- Segregation of hazardous and non-hazardous medical waste inside the Health care facility
- Each generator of hazardous medical waste separates the hazardous waste from non-hazardous waste, collecting and isolating it, and responsible for isolating and collecting waste in specially designed containers in health care facilities and departments as follows:
- Collects infectious waste in yellow-colored plastic bags bearing the phrase "Hazardous Medical Waste" along with the Biohazard logo.
- Disposes sharps in yellow, thick, leak proof and puncture proof container bearing the phrase "Hazard – Sharp Items" (in Arabic and English) and the Bio- Hazard logo.
- Collects liquid Chemical Waste inside yellow thick hermetically sealed, leak proof containers, bearing the phrase "Chemical Waste" in (Arabic and English); meanwhile, solid chemicals such as powder materials' waste shall be collected in yellow plastic bags bearing the phrase "Chemical Waste Medications" in (Arabic and English) as well as the Bio-Hazard logo
- Before collecting and transporting bags / containers for hazardous medical waste, they must ensure that all containers are completely closed and secure, and ensure that there are label data that reveal their contents, in addition to identifying the danger and putting the relevant tags related to it including the Biohazard logo.

Collection/Transportation within the Health Care Facility:

- Collection and transport of bags/containers of Hazardous Medical Waste require use of special trolleys and well-trained laborers in order to guarantee high degree of safety during collection/transport within the Health Care facility to prevent any leak or spill out of the bags/containers.
    - Waste is collected after 12 PM and 12 AM after the end of the official work hours to ensure safety during collection and transportation, and the waste transport path is sterilized after the transport process.
- Prior to collection and transport of bags/containers of Hazardous Medical Waste, these shall be fully sealed and locked and it shall be made sure that data-stickers that reveals their contents are available, as well as the presence of proper hazard identification and its related labeling including the Biohazard logo.
- Do not overfill waste bags and containers with not more than 3/4 their capacity and not be pressurized or compacted. Waste bags shall not be held close to the collector body or to be held from their bottom. Bags shall only be held at the top when handling.
- In case Hazardous Medical Waste spill or leak out of plastic bags, containers, or trolleys, such waste be considered extremely hazardous and requires an immediate action. Cleaning, disinfection, and safety measures must be taken when and where leakage is identified
- Non-Hazardous Medical Waste shall be collected in black plastic bags. These shall be treated separately and must be segregated from Hazardous Medical Waste in all stages, collection, transporting, storage inside the facility), until it is transported to final disposal places in the landfill

Storage :

The storage of medical waste is in controlled and locked medical waste room, monitored temperature and humidity.

Records Tracking:

- A signature from the generating facility is required on each tracking record at the time of pick-up. To minimize workers from exposure, the following measures must be followed:
- Wear mask, heavy-duty gloves and eye protection during cleaning of the containers.
- Close and seal the container before removal from the point of generation waste to prevent spillage and risk of exposure during handling and movement of containers.

- ❖ Maintain container integrity for the waste handlers during handling and segregation by closing container before pick-up to prevent spillage or protrusion of contents during, handling, storage and transport
- ❖ Train all personnel involved in the generation, handling of infectious material

Example of waste management:

Red Plastic Bag	Yellow Plastic Bag	Sharp Plastic Bag	Black Plastic Bag
			
Human body parts or tissue remove from patient. Extracted tooth with amalgam or filling.	Iv tubing used for blood and blood product. syringes without needle and used for blood and blood product. Mucous trap w/tubing /suction port . bloody Diapers. Test tubes containing specimen .	syringes with needle. Butterfly needle. Filter needle. Hypodermic needle. IV cannula needle. IV cannula w/ extension piece. Safety pin. Scalpel. Scissors. Suture silk with needle. Syringe with needle.	Adaptic. Adult armboards. Alcohol swab. Bandage&Bandage stretch. Bandaids strip. Biohazard Transport bag. Cath/drainage tube plug protector. Catheter leader. Chux underpads. Cotton ball large. ECG electrodes. ECG monitor paper. Eye shield alum. Foley catheter tray with drainage system. Gauze. Gel intrasite. Gloves & Gowns . Mask w/ splash guard. N95 respirator mask. Paper towels. Petrolatum gauze. Dressing. Surgical mask. Suture silk without needle. Tongue depressor. Tooth extracted and demilitarized and that do not contain amalgam fillings.

Renovation project Guidelines:

This policy helps Infection Prevention and Control Department to be an active member in any construction /renovation projects team where they will play a major role in providing education to workers and staff involved in the project to ensure that preventive measures are outlined, implemented.

Purpose:

- To ensure that the infection prevention and control risk assessment, interventions and control practices are incorporated into the planning, construction and renovation in the health care setting by defining the steps and precautions compliant to infection prevention and control procedures.
- To eliminate infection and environmental hazards that poses danger to personnel in all patients' healthcare setting.

Scope:

This policy applies to all healthcare personnel.

DEFINITIONS:

Dumpster – is a large steel waste receptacle designed to be emptied into garbage trucks.

High Efficiency Particulate Air – (HEPA filter)or high efficiency particulate air filter is a type of high-efficiency air filter that can remove at least 99.97% of airborne particles, 0.3 micrometers (um) in diameter.

Heating, Ventilating, and Air Conditioning (HVAC) system, which is important in the design of the building and offices where safe, and health building conditions are regulated with temperature and humidity as well as fresh air from outdoors.

PROCEDURES:

PRECONSTRUCTION PREVENTIVE MEASURES

- The Infection Prevention and Control Department is to be consulted to provide information on infection and environmental control risk assessment in all current and future construction activities in the complex .
- An infection control practitioner should identify the following
  the type of ,

  Type A: inspection and Non –invasive activities

  Type B: small scale short duration activities which create minimal dust

  Type C: work that generates moderate to high level of dust or demolition

  Type D: major demolition and construction project

An infection control practitioner should identify the patient risk groups that will be affected

Group 1:offece areas-non patient areas

Group 2 patient areas

4..2.3 An infection control practitioner should match the patient risk groups and construction project activities type to find class of precautions

Infection control practitioner performs the following:

1. Assess the plan to include adequate number of hand washing sinks.
2. Assess the plan relative to clean and soiled utility rooms.
3. Discuss the traffic flow, housekeeping, debris removal (how and when) with the project team.
4. Educate project managers and contractors who in turn will ensure that the construction workers receive the appropriate education.
5. Clearly outline the infection control practitioner authority to stop construction project if the breaches in prevention measures arise that may expose patient and personnel to infection

Multidisciplinary team be established (infection control, environmental health control, safety engineering) to cooperate demolition, construction and renovation projects.

CONSTRUCTION PREVENTIVE MEASURE:

- Seal all windows, doors, air intake and exhaust vents should be sealed in areas of the center, adjacent to buildings that are going to be demolished to prevent air leaks into patient care areas.
- Create a dust barrier from the floor to the ceiling and edges sealed.
- Ensure that air from construction/renovation areas is not re-circulated to other areas of the facility.

Place a moist carpet inside the entrance of the construction zone to trap dust.

Clean the carpet daily or when visibly soiled.

- Place dust mat at entrance and exit of work area.
- Protective clothing is to be worn by construction workers in the construction zone because of the high concentration of dust.
- All personnel entering the work site are required to wear shoe cover, and must be removed

each time they will exit.

- Clean the construction zone daily using a wet mop technique.

- Enclose the used supplies and equipment in covered containers when being transported out of the area to prevent spillage.
- Place adequate signage in the construction area.

POST CONSTRUCTION PREVENTIVE MEASURES

- Thoroughly clean the construction zone, including all horizontal surfaces, before the barrier is removed.
- Clean the construction zone after the barrier is removed and before patients are readmitted to the area. Allow time for all dust to settle before doing final cleaning.
- Infection Control checks the area before patients visit to the finished area.
- Ensure that multidisciplinary project committee or designate conducts a final walk through to ensure ventilation system is functioning properly in construction zone and adjacent area.
- Flush water lines prior to use if they were disrupted.

If there are concerns about Legionella, consider hyper chlorinating stagnant water or superheating and flushing all distal sites before restoring or repressurizing the water system.

- Disinfect unused cooling towers and water supply in unoccupied portions of building before they are put to use.
- Assess hot water temperature to determine that it meets the standards set by the center.
- Ensure that multidisciplinary project committee or designate evaluates the preventive measures and reviews their effectiveness for any problems and positive outcomes.
- Fungal air samples will be obtained by Infection Control Department when appropriate and the area has been thoroughly cleaned and inspected by Housekeeping and by Infection Control.

    1. Fungal air sample will be taken by the Infection Control Department before opening the area.

    2. Areas are opened if the culture is negative.

    3. The area is not opened if the culture is positive. Cleaning repeated then another re-culturing is to be done by the Infection Control Department.

    4. If the repeated culture is proven negative, the area is to be opened for operation after clearance from the Infection Control Department is obtained.

Healthcare Associated Infection Surveillance:

This policy Identify measures which are required in case of any alert organisms or alert conditions that may give rise to outbreaks in order to allow timely investigation and control and identify some surveillance measured to reduce spread of infection inside and outside the complex.

Purpose:

To outline the essential elements for Healthcare Associated Infection (HAI) surveillance activities and succinctly describe the traditional surveillance methodology at the complex.

Scope:

This policy applies to all healthcare personnel**.**

DEFINITIONS

Surveillance: is a systematic method for continuous monitoring of diseases in a population, in order to be able to detect changes, analyze the data, disseminate the results and put into practice effective prevention and control mechanisms.

2.2 Healthcare Associated Infection (HAI):

Are a localized or systemic conditions that result from adverse reaction to the presence of an infection agent(s) or toxin(s) that patients acquired during the course of receiving treatment for other condition or that health care workers acquire while performing their duties within a healthcare setting. the term (HAI) is used to refer to infections associated with healthcare delivery in any setting (e.g., hospitals, long term care facilities, ambulatory settings, home care and primary health care)

2.3 Community acquired infection:

Any infection acquired in the community, that is contrasted with those acquired in a health care facility. An infection would be classified as community-acquired if the patient had not recently in a health care facility or been in contact with someone who had been recently in health care facility.

PROCEDURES:

Data Collection:

- ☒ If Infection Prevention and Control coordinator notice clusters of cases from any of the Specific alert organisms/conditions (attachment 1),within a short period of time, the infection control director in the complex begins the stage of verifying the infection through the following:

1. Infection control director rounds
2. Clinical record reviews
3. Laboratory report reviews
4. Medication/pharmacy report reviews
5. notifications by medical and nursing staff

- ☒ Some of the alert conditions should be reported frequently according to notification system of infectious diseases in Saudi Arabia .
- ☒ Some of the data will be collected, analyzed and reported using a standardized format (paper or computerized) as available through the local notification system. For any other events without special format, the report should include the following information: demographic data which includes: name, date of birth, nationality, and gender plus file identification number.
- ☒ Infection data: onset date, site of infection, patient care location, intrinsic and extrinsic risk factor, and previous negativity (review health record).
- ☒ Laboratory data: name of pathogen, serology, any other special test (if used Radiographic/imaging result (e.g. x-ray, ultra sound, etc.) (If used) To evaluate the team regarding the information and applicability of infection control measures in the primary health care center we will use the infection control tracer survey tool (attachment).
- ☒ As follow: an apply survey tool for all medical staff as primary evaluation b start doing Lectures and practical training in the complex about the rules of apply infection control measures and for all employees in the complex.

☒ Reevaluate after a period of time depend on the number of staff and training schedule regarding surveillance of general environment in healthcare facilities apply Survey assessment of environmental cleanliness(attachment 5)

A- Work on change and improve the indicators which have defect during a certain period of time determined by the infection control direct or within the Centre

B- reevaluate the environment by apply Survey assessment of environmental cleanliness.

Denominator data collection;

- Assigned trained personnel other than ICP to collect denominator data
- Counts of daily total number of patients in different patient care area of the complex.
- Sums these daily counts at the end of the surveillance period for use as denominators

Data analysis: by (IPC)

- Select the patient population for analysis

{Denominators: the number of patients at risk of acquiring HAI}

- Selects the infection or events to be used in numerator (patient specific, site specific, time specific) {Numerator: numbers of infections or infected patients observed}
- Put the result of data collected into rate and ratios according to selected period of time for analysis
- Denominator of the rate on which the statistical data will be based depend upon the type of surveillance employed, the initial focus will be on: infection rates, location, organism specific (proportions)
- calculation of infection rates:
- Incidence rate = numerator/denominator x κ

  K = constant that is multiple of 10.0, is different for different rates.

4-3-5-2 Overall monthly infection rate(%) = total number of HAI/ total number of patients x 100

Reporting surveillance outcome:

- All the reports to CHMC authority should be done through the infection control department
- consider confidentiality when disseminating outcome to concerned units or departments
- Employee illnesses will be reported by the staff health clinic

Infection Control policy in Medical Services unite

Infection control in Dental Clinic:

This policy is a guide for all dental healthcare personnel to ensure full understanding on the best practice of infection control practice in dental clinic.

Purpose:

- ❖ To prevent and minimize the risk of infection in dental healthcare settings.
- ❖ To promote awareness for each dental healthcare personnel in the importance of infection control practices in the Dental Clinic
- ❖ To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all dental healthcare personnel.

Roles and Responsibilities:

- ❖ All healthcare workers have responsibility to conform and respect all aspects of this policy.
- ❖ Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues.

DEFINITIONS

Cleaning:

The physical removal of foreign material (e.g.- dust, soil, organic material). This process entails scrubbing instruments and other items with a brush and using detergent and water

Sterilization:

The sterilization process eliminates all microorganisms (bacteria, viruses, fungi, and parasites), including bacterial spores. Sterilization is recommended for instruments and for other items that will come in contact with the bloodstream or tissues under the skin.

Standard Precautions:

Are group of infection prevention practices that apply to the care of all patients in all healthcare settings, regardless of the suspected or confirmed presence of an infectious agent. They are the primary strategy for the prevention of health care associated transmission of infectious agents among patients and healthcare personnel.

Critical instruments:

Instruments that penetrate sterile tissues or bone. Examples include forceps, scalpels, bone chisels, scalars, and burs

Semi critical instruments:

Instruments that do not penetrate sterile tissues or bone but contact oral tissues and mucous membranes.

Noncritical instruments:

Instruments that come into contact only with intact skin. Examples include x-ray heads.

CSSU:

Central Sterilization Service Unit.

PROCEDURES:

Before Patient treatment:

- Flush hand pieces, suction tubing, ultrasonic scalars, and air/water syringes each morning, before first patient of the day.
- Suction tubing should be flushed by placing the tube in a disinfectant solution.
- Place disposal covering (e.g. self-adjourning plastic cover) to prevent contamination of surfaces that have the potential to be touched by the dentist or the dental assistant as dental unit control, light handles, dental chair head and arm of X-ray tube, amalgamator, electric pulp tester, suction tubes and any surfaces that cannot be sterilized.
- Make sure that a sufficient number of instruments are available in the clinic. A total of at least four- high-speed turbine handpicks in a good condition should be available in each clinic.

During Patient Treatment:

- Treat all patients as potentially infectious by using protective attire and barrier techniques when contact with body fluids or mucous membranes are expected.

- Wear gloves and change them between each patient or during patient treatment if they become torn or cut.
- Wash hands before and after removal of gloves by using disinfectant soap and water or Alcohol hand rub.
- Wear a mask and change it between patients or during patient treatment if it becomes wet.
- Wear protective eye shield when splashes of blood and body fluids is expected and disinfect with alcohol after use.
- Wear uniforms, laboratory coats, or gowns that cover personal clothing and skin.
- Use the Unit- dose Concept as cotton rolls, cotton pellets, gauze, petroleum jelly, impression materials and waxes are all amenable to unit- dosage.
- Use Single- use Disposable Instruments: as prophylaxis angles, prophylaxis cups and brushes, tips for high- speed air evacuators, and air/water syringes for one patient only and discard after use.
- Use sterile water or saline as a coolant/irrigator when surgical procedures involve cutting bone or tissues.
- Handle sharps carefully. Do not recap or re-sheath needles. Report any needle stick injuries/ blood and body fluid exposure to your supervisor

After Patient Treatment:

- Pour blood, suctioned fluids, or other liquid waste into a drain connected to the sewage system.
- Place soiled waste contaminated with blood or other body fluids in sealed, sturdy impervious (Yellow) bags that are leakproof.
- Flush hand pieces, suction tubing, ultrasonic scalars, and air water syringes for 30 seconds.
- Change protective covering on light handles, X-ray unit head and other items.
- Wipe work surfaces and countertops with absorbent toweling to remove debris and dispose of this toweling appropriately, then disinfect with suitable chemical disinfectant.

Disposal of infectious waste material:

Medical Waste:
refers to any hazardous material no longer in use that represents a threat to human life, health or the environment. Handle waste in a manner to minimize infection risk. Refer to Waste Management Policy

Black bags

Used to dispose of general and medical waste; all wastes which were contaminated with No detectable infectivity (Tissues, excretions, and excretions) should be disposed in black bag (general wastes); except dressings from infected or surgical wounds, and the items heavily soiled with blood or other body fluids.

Yellow bags

(microbial cultures, viruses, TB, Brucella, Fungi) will be collected in plastic bags suitable for pre-treatment with autoclave within the generation site; these bags will bear the phrase Highly Infectious Waste and the Bio-Hazard logo. Following treatment, waste will be placed in yellow bags bearing the phrase Hazardous Medical Waste

Sharps containers

- Used to dispose of all used and unused sharps (e.g., blades, needles and discarded glass slides)
- Discard sharps so that they do not protrude from the opening of the container.
- Replace the sharps container promptly when the sharps container is 3⁄4 filled.

Red bags

Body Parts and Organs will be placed in red plastic bags bearing the phrase Bio-Hazard (in Arabic and English) and the Bio-Hazard logo, and will be stored in the freezer until dealt in accordance to Sharia Law (Islamic Law).

Manage immediately any blood, body fluid spillages and vomits as per the policy.

Instruments Cleaning, Disinfection, and Sterilization:

Pre-sterilization cleaning of soiled instruments

- Soak the soiled instruments in dental clinic approved enzymatic cleaner and disinfectant for 20 minutes to prevent drying of organic materials and make cleaning easier
- The enzymatic disinfectant should be freshly prepared according to manufacturer and kept covered in designated deep trays.
- Heat sterilize using autoclave class B for all critical items and disinfect non-critical items

Transportation of instruments:

- All instruments should be transported to and from the clinical area in clean boxes with secure lid
- Clean and dirty instrument should be transferred to and from the CSSU by two separate sealed boxes.

Cleaning and decontamination of Hand pieces, Anti retraction valves, and other Intraoral Dental Devices attached to Air and Water Lines of Dental Units:

- Hand pieces, ultrasonic scalars, inserts/tips and air-water syringe tips where detachable should be flushed for 30 seconds, dismantled, cleaned, oiled where required, and autoclaved between patients.

- Follow manufacturer's instructions for cleaning, lubrication of hand pieces and reusable prophylaxis angles to ensure effective sterilization and longevity of the instruments.
- Install anti retraction valves (one-way flow check valves) in dental unit water lines to prevent fluid aspiration and to reduce the risk of transfer of potentially infective material. Ensure routine maintenance of anti-retraction valves.

- Run high-speed hand pieces to discharge water and air for a minimum of 20-30 seconds after use on each patient. If possible, use an enclosed container or high velocity evacuation during discharge procedures to minimize spread of spray

.

Cleaning & Disinfection of Dental unit:

- After treatment of each patient and at the completion of daily work activities, clean countertops and dental unit surfaces that may have become contaminated with patient secretions. Use paper towels, an appropriate cleaning.
- Clean floors, walls, and other surfaces with Dental clinic approved disinfectants daily at the end of the shift and when contaminated.

Critical instruments	Semi-critical instrument	Non- critical instrument
Critical instruments are surgical instruments or any other instruments that contact &penetrates soft tissue or bone. Example include biopsy ,periodontal surgery , apical surgery and implant surgery.	Semi critical instruments or devices do not penetrates skin or mucus membranes. For example: respiratory therapy and anesthesia equipment, some endoscopes, laryngoscope blades.	Non-critical items are those that come in contact with intact skin but not mucous membranes. Examples of noncritical patient-care items are bedpans, blood pressure cuffs, crutches and computers
Any instrument fit that category should be sterilized in autoclave.	Semi-critical instruments should be	These items require low level or intermediate

	sterilized or at minimum high level disinfected like glutaraldehyde, hydrogen peroxide and hypochlorite.	level disinfection like chlorine and quaternary ammonium.

Infection Control in Human Medicine clinics (General Practitioner Clinic - Internal Medicine - Pediatrics - Urology - Obstetrics and Gynecology

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of infection control practice in human medicine clinic.

Purpose:

- To prevent and minimize the risk of infection in human medicine healthcare settings.
- To promote awareness for each dental healthcare personnel in the importance of infection control practices in the human medicine Clinics
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues

DEFINITIONS

Standard Precautions:

Are group of infection prevention practices that apply to the care of all patients in all healthcare settings, regardless of the suspected or confirmed presence of an infectious agent. They are the primary strategy for the prevention of healthcare associated transmission of infectious agents among patients and healthcare personnel.

CSSU:

Central Sterilization Service Unit

Personal Protective Equipment (PPE)

Is a specialized clothing or equipment worn by an employee for protection against infectious materials. The protective equipment includes gloves, gowns, apron, facial protection and mask.

Infection

Multiplication of microorganisms in the tissues of a host; infections can be asymptomatic or symptomatic

Contamination

Presence of microorganisms on or in inanimate objects or transiently transported on body Surfaces such as hands.

Sterilization:

The sterilization process eliminates all microorganisms (bacteria, viruses, fungi, and parasites), including bacterial spores. Sterilization is recommended for instruments and for other items that will come in contact with the bloodstream or tissues under the skin.

PROCEDURES

General Infection control measures: (Standard Precautions)

Hand hygiene: Adhere to proper hand hygiene practices when preparing, mixing, packaging or dispensing drugs/ medications. Remove any hand/wrist jewelry and scrub nails, hands and forearms with an antimicrobial soap before handling sterile products. Refer to **Hand Hygiene Policy.**

No food, drink is allowed inside clinics

- Wear gloves, gown, facemask, shoe covers, hair covers, and where applicable a cover for facial hair upon entering the preparation area. Refer to **Guidelines for the selection and use of PPE.**
- Clean and disinfect all equipment and work surfaces, countertops with center-approved disinfectants daily and whenever soiled

Handling/disposal of contaminated items

Patient-care equipment and instruments/devices:

Handle used patient care equipment in a manner that prevents skin and mucous membrane exposures, contamination of clothing and transfer of microorganisms to other patients and the environment.

Needles / sharps: Dispose used sharp items in an approved puncture resistant container immediately after use, at the point of use or as close to the point of use as possible. Refer to Safe Handling and Disposal of Sharps Policy.

Care of the environment:

Clean and disinfect surfaces that are in contact with the patient and its environment

Decontaminations

- ❖ Disinfection of all equipment used between each patient
- ❖ Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant
- ❖ Make sure to disinfecting the patient's bed and all surrounding area
- **In the obstetrics and gynecology clinic**, it is necessary to sterilize and disinfect the ultrasound device and the vaginal detection device between each patient
- Ensure that the examination bed is disinfected with approved disinfectants between each patient.

Transmission Based Precautions

Patients who are under contact isolation

- All the staff, who are to be in contact with the patient, should wash their hands, wear clean gloves and isolation gown, the surfaces like the examination table on which the patient will be laid down should be covered with single-use disposable covers and As soon as the patient leaves the examination area, all surfaces, The contact surfaces in particular, and the floor should be cleaned with disinfectant.
- Patients with acute respiratory illness should be instructed to wear a surgical mask, to cover the nose and mouth with a tissue when coughing or sneezing (cough etiquette) and be separated as much as possible from other patients with clear appointment for the patient through proper communication

Medical Waste:

refers to any hazardous material no longer in use that represents a threat to human life, health or the environment. Handle waste in a manner to minimize infection risk. Refer to Waste Management Policy

Black bags

Used to dispose of general and medical waste; all wastes which were contaminated with No detectable infectivity (Tissues, excretions, and excretions) should be disposed in black bag (general wastes); except dressings from infected or surgical wounds, and the items heavily soiled with blood or other body fluids.

Yellow bags

(microbial cultures, viruses, TB, Brucella, Fungi) will be collected in plastic bags suitable for pre-treatment with autoclave within the generation site; these bags will bear the phrase Highly Infectious Waste and the Bio-Hazard logo. Following treatment, waste will be placed in yellow bags bearing the phrase Hazardous Medical Waste

Sharps containers

- ❖ Used to dispose of all used and unused sharps (e.g., blades, needles and discarded glass slides)
- ❖ Discard sharps so that they do not protrude from the opening of the container.

- Replace the sharps container promptly when the sharps container is ¾ filled.

Red bags

Body Parts and Organs will be placed in red plastic bags bearing the phrase Bio-Hazard (in Arabic and English) and the Bio-Hazard logo, and will be stored in the freezer until dealt in accordance to Sharia Law (Islamic Law).

Infection Control in Dermatology Department

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of infection control practice in human medicine clinic.

Purpose:

- To prevent and minimize the risk of infection in human medicine healthcare settings.
- To promote awareness for each Dermatology healthcare personnel in the importance of infection control practices in the human medicine clinics
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues

DEFINITIONS

Standard Precautions:

Are group of infection prevention practices that apply to the care of all patients in all healthcare settings, regardless of the suspected or confirmed presence of an infectious agent. They are the primary strategy for the prevention of health care associated transmission of infectious agents among patients and healthcare personnel.

CSSU:

Central Sterilization Service Unit

Personal Protective Equipment (PPE)

Is a specialized clothing or equipment worn by an employee for protection against infectious materials. The protective equipment includes gloves, gowns, apron, facial protection and mask.

Infection

Multiplication of microorganisms in the tissues of a host; infections can be asymptomatic or symptomatic.

Contamination

Presence of microorganisms on or in inanimate objects or transiently transported on body Surfaces such as hands.

Sterilization:

The sterilization process eliminates all microorganisms (bacteria, viruses, fungi, and parasites), including bacterial spores. Sterilization is recommended for instruments and for other items that will come in contact with the bloodstream or tissues under the skin.

PROCEDURES

General Infection control measures: (Standard Precautions)

Hand hygiene: Adhere to proper hand hygiene practices when preparing, mixing, packaging or dispensing drugs/ medications. Remove any hand/wrist jewelry and scrub nails, hands and forearms with an antimicrobial soap before handling sterile products. Refer to **Hand Hygiene Policy.**

No food, drink is allowed inside clinics

- Wear gloves, gown, facemask, shoe covers, hair covers, and where applicable a cover for facial hair upon entering the preparation area. Refer to **Guidelines for the selection and use of PPE.**
- Clean and disinfect all equipment and work surfaces, countertops with center-approved disinfectants daily and whenever soiled.

Handling/disposal of contaminated items

Patient-care equipment and instruments/devices:

Handle used patient care equipment in a manner that prevents skin and mucous membrane exposures, contamination of clothing and transfer of microorganisms to other patients and the environment.

Needles / sharps: Dispose used sharp items in an approved puncture resistant container immediately after use, at the point of use or as close to the point of use as possible. Refer to Safe Handling and Disposal of Sharps Policy.

Care of the environment:

Clean and disinfect surfaces that are in contact with the patient and its environment

Decontaminations

- ❖ Disinfection of all equipment used between each patient
- ❖ Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant

- ❖ Make sure to disinfecting the patient's bed and all surrounding area

Transmission Based Precautions

Patients who are under contact isolation

- All the staff, who are to be in contact with the patient, should wash their hands, wear clean gloves and isolation gown, the surfaces like the examination table on which the patient will be laid down should be covered with single-use disposable covers and As soon as the patient leaves the examination area, all surfaces, The contact surfaces in particular, and the floor should be cleaned with disinfectant.

- Patients with acute respiratory illness should be instructed to wear a surgical mask, to cover the nose and mouth with a tissue when coughing or sneezing (cough etiquette) and be separated as much as possible from other patients with clear appointment for the patient through proper communication.

Medical Waste:

refers to any hazardous material no longer in use that represents a threat to human life, health or the environment. Handle waste in a manner to minimize infection risk. Refer to Waste Management Policy

Black bags

Used to dispose of general and medical waste; all wastes which were contaminated with No detectable infectivity (Tissues, excretions, and excretions) should be disposed in black bag (general wastes); except dressings from infected or surgical wounds, and the items heavily soiled with blood or other body fluids.

Yellow bags

(microbial cultures, viruses, TB, Brucella, Fungi) will be collected in plastic bags suitable for pre-treatment with autoclave within the generation site; these bags will bear the phrase Highly Infectious Waste and the Bio-Hazard logo. Following treatment, waste will be placed in yellow bags bearing the phrase Hazardous Medical Waste

Sharps containers

- ❖ Used to dispose of all used and unused sharps (e.g., blades, needles and discarded glass slides)
- ❖ Discard sharps so that they do not protrude from the opening of the container.
- ❖ Replace the sharps container promptly when the sharps container is ¾ filled.

Red bags

Body Parts and Organs will be placed in red plastic bags bearing the phrase Bio-Hazard (in Arabic and English) and the Bio-Hazard logo, and will be stored in the freezer until dealt in accordance to Sharia Law (Islamic Law).

Infection Control in Dressing Room

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of infection control practice **Dressing Room**.

Purpose:

- To prevent and minimize the risk of infection in Dressing Room
- To promote awareness for each healthcare personnel in the importance of infection control practices in the Dressing Room
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues.

DEFINITIONS

Standard precautions:

Are a group of infection prevention practices that apply to the care of all patients in all healthcare settings, regardless of the suspected or confirmed presence of an infectious agent. They are the primary strategy for the prevention of healthcare. Associated transmission of infectious agents among patients and healthcare personnel.

Personal Protective Equipment (PPE)

Is a specialized clothing or equipment worn by an employee for protection against infectious materials. The protective equipment includes gloves, gowns, apron, facial protection and mask.

Hand Hygiene

Performing hand washing, antiseptic hand wash, alcohol-based hand rub and surgical hand scrubbing/ rubbing.

PROCEDURES

General Infection control measures: (Standard Precautions)

Hand hygiene: Adhere to proper hand hygiene practices when preparing, mixing, packaging or dispensing drugs/ medications. Remove any hand/wrist jewelry and scrub

nails, hands and forearms with an antimicrobial soap before handling sterile products. Refer to **Hand Hygiene Policy.**

No food, drink is allowed in the Dressing room.

- Wear gloves, gown, facemask, shoe covers, hair covers, and where applicable a cover for facial hair upon entering the preparation area. Refer to **Guidelines for the selection and use of PPE.**
- Avoid touch contamination of sterile supplies..
- Clean and disinfect all equipment and work surfaces, countertops with center-approved disinfectants daily and whenever soiled

General procedures:

- Wash hands using an antiseptic for at least 20-30 seconds
- Preparing and equipping the necessary tools and placing them in a manner that facilitates their use
- Withdraw the required medication from the ampoule or vial
- Put the prepared syringe in a small tray with a swab so that the tools are next to you when giving the treatment, alcohol and a piece of cotton or gauze with the prescription. To ensure patient response and psychological comfort.
- Properly dispose of tools and machines contaminated with the patient's secretions in the hazardous material container, according to infection control standards.
- Dispose of waste in a hazardous waste container according to infection control standards
- Dispose of sharps in a sharps container.

Resuscitation Devices:

Use mouthpieces, resuscitation bags, or other ventilation devices as an alternative to mouth-to mouth resuscitation methods in areas where the need for resuscitation is predictable

Handling/disposal of contaminated items

Patient-care equipment and instruments/devices: Handle used patient care equipment in a manner that prevents skin and mucous membrane exposures, contamination of clothing and transfer of microorganisms to other patients and the environment.

Patient Placement:

Place the patient in a private room who

- Contaminates the environment (uncontrolled secretions/excretions, large open wound)

- Does not (or cannot be expected to) assist in maintaining appropriate hygiene or environmental control.
- If a private room is not available, consult with infection control staff regarding patient placement or other alternatives

Safe injection practices:
Use aseptic technique to avoid contamination of sterile injection equipment.

Needles / sharps:
Dispose used sharp items in an approved puncture resistant container immediately after use, at the point of use or as close to the point of use as possible. Refer to Safe Handling and Disposal of Sharps Policy.

Care of the environment:
Clean and disinfect surfaces that are in contact with the patient and its environment

Decontaminations
Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant.

Medical Waste:
refers to any hazardous material no longer in use that represents a threat to human life, health or the environment. Handle waste in a manner to minimize infection risk. Refer to Waste Management Policy

Black bags

Used to dispose of general and medical waste; all wastes which were contaminated with No detectable infectivity (Tissues, excretions, and excretions) should be disposed in black bag (general wastes); except dressings from infected or surgical wounds, and the items heavily soiled with blood or other body fluids.

Yellow bags

(microbial cultures, viruses, TB, Brucella, Fungi) will be collected in plastic bags suitable for pre-treatment with autoclave within the generation site; these bags will bear the phrase Highly Infectious Waste and the Bio-Hazard logo. Following treatment, waste will be placed in yellow bags bearing the phrase Hazardous Medical Waste

Sharps containers

- ❖ Used to dispose of all used and unused sharps (e.g., blades, needles and discarded glass slides)
- ❖ Discard sharps so that they do not protrude from the opening of the container.
- ❖ Replace the sharps container promptly when the sharps container is ¾ filled.

Red bags

Body Parts and Organs will be placed in red plastic bags bearing the phrase Bio-Hazard (in Arabic and English) and the Bio-Hazard logo, and will be stored in the freezer until dealt in accordance to Sharia Law (Islamic Law).

Infection Control policy in Support Services unite

Infection Control in laboratory

This policy is a guide for all laboratory personnel to ensure full understanding on the best practice of infection control services in the LAB

Purpose:

- To prevent and minimize the risk of infection in laboratory settings.
- To promote awareness for each laboratory personnel in the importance of infection control services
- To provide a framework for the education of laboratory personnel in the infection prevention and control.

Scope:

This policy applies to laboratory personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues

Definitions:

Personal Protective Equipment (PPE) ***)***

Is a specialized clothing or equipment worn by an employee for protection against infectious materials. The protective equipment includes gloves, gowns, apron, facial protection and mask.

Infection

Multiplication of microorganisms in the tissues of a host; infections can be asymptomatic or symptomatic

Contamination

Presence of microorganisms on or in inanimate objects or transiently transported on body Surfaces such as hands.

HBV: Hepatitis type B virus.

HIV: Human immunodeficiency virus.

HCV: Hepatitis type C virus.

PROCEDURES

General Infection control measures: (Standard Precautions)

Hand hygiene: Adhere to proper hand hygiene practices when preparing, mixing, packaging or dispensing drugs/ medications. Remove any hand/wrist jewelry and scrub nails, hands and forearms with an antimicrobial soap before handling sterile products. Refer to **Hand Hygiene Policy.**

No food, drink or smoking is allowed in the Laboratory.

Wear gloves, gown, facemask, shoe covers, hair covers, and where applicable a cover for facial hair upon entering the preparation area. Refer to **Guidelines for the selection and use of PPE.**

Avoid touch contamination of sterile supplies. Refer to Aseptic technique Policy.

Clean and disinfect all equipment and work surfaces, countertops with center-approved disinfectants daily and whenever soiled.

Needles / sharps:

Dispose used sharp items in an approved puncture resistant container immediately after use, at the point of use or as close to the point of use as possible. Refer to Safe Handling and Disposal of Sharps Policy.

Care of the environment:

Clean and disinfect surfaces that are in contact with the patient and its environment

Decontaminations

- Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant.
- Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant.
- Decontaminate all potentially infectious materials before disposal using an effective method (e.g.: Steam autoclave)
- All Laboratory Equipment must be decontaminated

Medical Waste:

refers to any hazardous material no longer in use that represents a threat to human life, health or the environment. Handle waste in a manner to minimize infection risk. Refer to Waste Management Policy

Black bags

Used to dispose of general and medical waste; all wastes which were contaminated with No detectable infectivity (Tissues, excretions, and excretions) should be disposed in black bag (general wastes); except dressings from infected or surgical wounds, and the items heavily soiled with blood or other body fluids.

Yellow bags

(microbial cultures, viruses, TB, Brucella, Fungi) will be collected in plastic bags suitable for pre-treatment with autoclave within the generation site; these bags will bear the phrase Highly Infectious Waste and the Bio-Hazard logo. Following treatment, waste will be placed in yellow bags bearing the phrase Hazardous Medical Waste

Sharps containers

- Used to dispose of all used and unused sharps (e.g., blades, needles and discarded glass slides)
- Discard sharps so that they do not protrude from the opening of the container.
- Replace the sharps container promptly when the sharps container is ¾ filled.

Red bags

Body Parts and Organs will be placed in red plastic bags bearing the phrase Bio-Hazard (in Arabic and English) and the Bio-Hazard logo, and will be stored in the freezer until dealt in accordance to Sharia Law (Islamic Law).

Phlebotomy

The laboratory is responsible for most phlebotomy procedures.

All patients should be handled using standard precautions, use of PPE, and safe injection practices and safe needles. Hand hygiene is the single most effective means of preventing transmission of infection.

All phlebotomy needles should be disposed of promptly in a puncture-resistant container to prevent their reuse or accidental injury to a handler.

To protect the patient from infection after phlebotomy, the following measures should be employed:

- Tourniquets should be one-time use or one-patient use only
- The skin should be aseptically prepared before phlebotomy with either a 70 per cent isopropyl alcohol preparation or in the case of blood cultures a 10 per cent povidone-iodine solution or chlorhexidine gluconate.

A clean gauze pad, cotton ball or bandage should be placed over the puncture site to stop bleeding if necessary.

Samples collection

- All specimens are to be received in a closed container or plastic bag with biohazard label and put the full patient information (name, age, date ,and file number)
- All sharps including scalpels tissue prep blades, needles and discarded glass slides are to be disposed of in a suitable biohazard marked sharps container.
- All disposable gloves, paper towels, empty specimen containers and personal safety equipment shall be disposed of in a biohazard Black plastic bag for treatment by the process of incineration.

Transporting the sample

- Samples should be transported to the lab by a trained health care worker.
- Samples have to be placed in closed tubes for transportation.
- Personnel who package and ship these specimens must be concerned with their safety and the protection and safety of those who receive the material.
- Samples transported by local carriers such as cabs, hospital and clinical vehicles, or personal cars must meet packaging standards.
- The sample identification document must be located outside additionally, labels clearly marking the biohazard level must be prominently displayed on the outside container Depending on the level of biohazard

Lab. accident emergency plan

- Notify YOUR supervisor
- Gloves are to be worn during all clean-up procedures

All clinical laboratories must have blood spill biohazard equipment/kits available to safely and effectively clean up any spills. This kit must include the following:

- Personal protective equipment (PPE) such as gown, gloves, eyewear, mask.
- Supplies such as forceps, plastic scoop and scraper, absorbent granules or absorbent pads,
- Complex -approved disinfectant, yellow plastic bag and sharp container
- If the spills on the floor, prevent people from walking through the affected area and spreading the blood or other potentially infectious material to other areas Contain spill, use other absorbent granules or absorbent pads to contain the spill.

- Put on appropriate PPEs
- Use a plastic scoop or other mechanical means to remove any broken glass or other sharp objects from the spill area, and dispose in the sharp container
- Sprinkle absorbent granules over the spill and leave for two minutes or as per the manufacturer's recommended contact time. Allow the spill to solidify before removing.
- Remove the solidified waste material using the scoop and scraper and carefully dispose of all contaminated materials into the infectious waste bag

  If there are no available absorbent granules contain the spill by placing absorbent pads (i.e.
- Paper towel) on top of the spill and apply the appropriate disinfectant. To avoid creating aerosols, never spray disinfectant directly onto the spilt material. Instead, gently pour disinfectant on top of paper towels covering the spill or gently flood the affected area, first around the perimeter of the spill, then working slowly toward the spilt material.
- Pick up all absorbent material and carefully place it in the infectious yellow bag for disposal. Remove PPEs and place them in a yellow bag for disposal.
- Seal the yellow bag.
- Wash hands thoroughly with soap and water.
- Contact housekeeping to clean the affected area with hospital-approved disinfectant.

Environmental services (Housekeeping Services)

- Pick up waste at least once per day and as needed.
- Handle bags at the top so that the bags do not come in contact with your body.
- Do not use your hands to compress (squeeze) waste in containers/bags.

  Tie bags using a self-lock plastic tie and securely before placing them in a temporary
- holding area such as a dirty utility room (Do not store waste bags in hallways or corridors)

- Replace the sharps container promptly when it is ¾ full or reaches the fill line
- Fasten the cover of a full sharps container securely before removing.

Label the infectious waste bags or sharp containers with the following information:

- Generating department
- Date collected
- Time
- Weight
- Decontaminate disposal bins/containers when visibly soiled.
- Decontaminate carts used for transporting waste Use leak-proof carts that are readily cleanable to transport infectious waste from the point of generation or storage to the point of disposal and treatment.
  Pick up and discard broken glass using a mechanical device such as forceps or a brush and Dustpan (Broken glass should never be handled with gloved or non-gloved hands).
- Clean blood spills according to a written procedure.
- Work surfaces must be decontaminated with a chlorine solution (e.g. bleach) routinely at the completion of work and following any spill of potentially infectious material.
- Use intermediate-level disinfectants for surface decontamination in laboratory areas. Examples of these include diluting bleach, ethyl or isopropyl alcohol, or phenols, which are designed for disinfection and not for skin antisepsis.

Infection prevention and occupational exposures

The goal of occupational health in a clinical lab is to promote a safe and healthy workplace. Educate laboratory workers about the biohazards to which they may be occupationally exposed.

- Provide vaccines to workers to protect them against infectious agents to which they may be Occupationally exposed.
- Encourage workers to seek medical evaluation for symptoms that they suspect may be related to infectious agents in their work area
- Report all occupational injuries

Protocol for laboratory employee protection

If one has such an accident involving blood, plasma or serum from a Specific Identifiable

Patient, he should report immediately to his supervisor.

HCW must seek medical evaluation post-injury, which should include the following:

- The potential infectious agent.
- The mechanism and route of exposure.
- Time and place of the incidence.
- Personal protective equipment used at the time of injury.

Hepatitis B Exposure

Employee Health will obtain patient information so that they can determine if the patient as a known positive HBV if so, they will so advise the Laboratory Director

If testing for HBV has not been done on this patient (source), a blood specimen is to be obtained from the patient and sent to the laboratory to be tested. If the results are negative, no further actions will be taken except to inform the employee and to send the report to Physician

- If the result is positive, the Laboratory Director will consult the Employee Health so the arrangements can be made for the employee to receive two injections of Hepatitis B Immune Globulin, the first with 7 days of exposure, the second within 28-30 days of Exposure

Hepatitis C Exposure

Testing for HCV:

- For the source, perform testing for anti HCV.
- For the person exposed to an HCV-positive source.
- Perform baseline testing for anti-HCV and ALT activity; and perform follow-up testing (e.g., at 4-6 months) for anti-HCV and ALT activity (if earlier diagnosis of HCV infection is desired, testing for HCV RNA may be performed at 4-6 weeks).
- Confirm all anti-HCV results reported positive by enzyme immunoassay using supplemental anti-HCV testing (e.g., recombinant immunoblot assay [RIBATM]).
- For all HCW, those who are chronically infected with HBV or HCV should follow all recommended infection-control practices, including standard precautions and appropriate use of hand washing, protective barriers, and care in the use and disposal of needles and other sharp instruments.

Vaccines:

- Personnel is required to receive the Hepatitis B.

This policy is a guide for all Radiologist personnel to ensure full understanding on the best practice of infection control services in the Radiology

Purpose:

- To prevent and minimize the risk of infection in Radiology settings.
- To promote awareness for each Radiologist personnel in the importance of infection control services
- To provide a framework for the education of Radiologist personnel in the infection prevention and control.

Scope:

This policy applies to all radiologist personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their department functions within the parameters of the policy and that staff are trained and assessed in these issues

Definitions:

Personal Protective Equipment (PPE)

Is a specialized clothing or equipment worn by an employee for protection against infectious materials. The protective equipment includes gloves, gowns, apron, facial protection and mask.

Infection

Multiplication of microorganisms in the tissues of a host; infections can be asymptomatic or symptomatic

Contamination

Presence of microorganisms on or in inanimate objects or transiently transported on body Surfaces such as hands.

Disinfection: Process that destroy disease-causing Microorganism but not necessarily all Microbial life.

Sterilization: process that kills all microbial life, including Bacterial spores, Viruses, Bacteria& Fungi

PROCEDURES

Standard infection prevention precautions must be applied to all patients regardless their infectious status.

General Infection control measures: (Standard Precautions)

- **Hand hygiene**: Adhere to proper hand hygiene practices when preparing, mixing, packaging or dispensing drugs/ medications. Remove any hand/wrist jewelry and scrub

nails, hands and forearms with an antimicrobial soap before handling sterile products. Refer to **Hand Hygiene Policy.**

No food, drink or smoking is allowed in the radiology unite.

- Most of diagnostic radiography (Chest and extremities x- ray), ultrasound (abdominal, transvaginal, trans-rectal) activities do not require the use of PPE.
- Put on proper Personal Protective Equipment (P.P.E.) when you anticipate touching Patient's blood, body fluids, secretions, excretions and contaminated items used with the patient.
- Wear gloves, gown, facemask, shoe covers, hair covers, and where applicable a cover for facial hair upon entering the preparation area

Care of the environment:

- Clean and disinfect surfaces that are in contact with the patient and its environment

Decontaminations

- Disinfecting work surfaces after work is completed
- Disinfect all potentially infectious materials prior to disposal using an effective method
- All x-ray equipment must be disinfected patient's bed, x-ray machine, radiographic ,lead shields and ultrasound equipment
- Clean and disinfect all equipment and work surfaces, countertops with center-approved disinfectants daily and whenever soiled

Medical Waste:

Handle waste in a manner to minimize infection risk. Refer to Waste Management Policy

- Dispose used sharps and disposable penetrating instruments, item(Needles/sharps/ glass ampules) into an approved puncture-resistant container immediately after use, at the point of use and must never be transferred from hand to hand.

Black bags

Used to dispose of general hospital waste.

Yellow bags

- Used to dispose of infectious waste.
- Anything that contaminated with patient secretion like mask and gloves
- One designated infectious waste garbage bin lined with a yellow disposal bag can be kept.

Sharps containers

- Used to dispose of all used and unused sharps (e.g., blades, needles and discarded glass slides)
- Discard sharps so that they do not protrude from the opening of the container.
- Replace the sharps container promptly when the sharps container is 3⁄4 filled.

Needles / sharps: Dispose used sharp items in an approved puncture resistant container immediately after use, at the point of use or as close to the point of use as possible. Refer to Safe Handling and Disposal of Sharps Policy.

Cleaning:

- Radiology Rooms should be cleaned daily and when needed.
- Blood and body fluid spillage in the radiology department especially in rooms that have patients with procedures can produce splashes of blood or body fluid.
- Staff should be compliant with method of cleaning & disinfection of blood and/or body fluid spill.

Transmission Based Precautions

- ***Patients who are under contact isolation***

All the staff, who are to be in contact with the patient, should wash their hands, wear clean gloves and isolation gown, the surfaces like the examination table on which the patient will be laid down should be covered with single-use disposable covers and As soon as the patient leaves the examination area, all surfaces, The contact surfaces in particular, and the floor should be cleaned with disinfectant.

Patients with acute respiratory illness should be instructed to wear a surgical mask, to cover the nose and mouth with a tissue when coughing or sneezing (cough etiquette)and be separated as much as possible from other patients with clear appointment for the patient through proper communication

Ultrasound

- Ultrasound procedures contaminated with pathogenic bacteria can cause disease and may lead to further spread of the following organisms
- Make sure to clean it Disinfecting between each patient.

Infection control policy in environmental services

- **Environmental Surfaces Infection Control for healthcare personal and housekeeping**

Environmental Surfaces Infection prevention and Control

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of environmental infection control in healthcare settings.

Purpose:

- To prevent/minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of environmental surfaces infection control.
- To provide a framework for the education of healthcare personnel in the Environmental Infection Control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers/ unite heads have a key responsibility to ensure their unite functions within the parameters of the policy and that staff are trained and assessed in these issues.

Definitions:

High-level disinfectant: a liquid chemical germicide used in the disinfection process for critical and semi critical patient-care devices.

Intermediate-level disinfectant:

- A liquid chemical germicide with a label claim of potency as a tuberculocidal.
- A process that inactivates most vegetative bacteria, most fungi, and some viruses, but cannot be relied on to inactivate resistant microorganisms, such as mycobacteria or bacterial spores.

Low-level disinfectant:

- A liquid chemical germicide used as a hospital disinfectant.
- a process that will inactivate most vegetative bacteria, some fungi, and some viruses but cannot be relied on to inactivate resistant microorganisms (e.g., mycobacteria or bacterial spores)

Surface barrier:

Material that prevents the penetration of microorganisms, particulates, and fluids.

Procedure:

Based on the potential risk of contamination, the various environmental surfaces can be divided into **clinical contact surfaces** and **housekeeping surfaces**.

These two types of surfaces require different types of cleaning/disinfecting agents and protocols.

Clinical Contact Surfaces: Clinical contact surfaces are those surfaces which risk being contaminated with aerosols and spatter or touched with contaminated gloves during operation especially in dental clinics. Such surfaces include, but are not limited to the

dental chair, light handles, switches. Dental radiograph equipment, dental chair-side computers reusable containers of dental materials, drawer handles, Sinks and faucet handles used for processing contaminated items, countertops, pens, telephones, and doorknobs. Other clinical surfaces including Dressing table, x-ray machine, ultrasound machine. Patient bed, and any object that contaminated with the patients .The spread of microorganism from these surfaces can be minimized by

- Using impervious barriers to cover the surfaces during treatment, or cleaning and disinfecting such surfaces after patient treatment.

Using Barriers:

- Covering surfaces with an impervious barrier is the preferred method of preventing cross-contamination from clinical contact surfaces.
- Even if barriers are used, general cleaning and disinfection of clinical contact surfaces, healthcare unit surfaces, and countertops is required at the end of the work session.
- When barriers are used to prevent cross-contamination, they must be removed between patients. A new set of barriers should be placed with each patient. Barriers should never be used for more than one patient.
- After removal of the barrier, the surface should be examined. If the surface is found to have been inadvertently soiled, then it should be cleaned and disinfected before placement of clean barriers for the next patient.
- Suitable materials for use as barriers include clear plastic wrap, bags, sheets, tubing, and plastic-backed paper or other materials impervious to moisture.

Cleaning and Disinfection:

- Cleaning is using detergents or surface-active agents to remove organic matter (e.g., saliva and blood), salts, and visible soils.
- The physical action of scrubbing with detergents and surfactants and rinsing with water removes substantial numbers of microorganisms. Furthermore, if a surface is not cleaned first, the disinfection process may be ineffective (depending on the type of disinfectant) because organic matter interferes with the action of some disinfectants.
- Removal of all visible blood and inorganic and organic matter is critical as the germicidal activity of the disinfecting agent.

- Even if barriers are used, general cleaning and disinfection of clinical contact surfaces, dental unit surfaces, and countertops is required at the end of the work session.

There are two methods for cleaning and disinfection: spray-wipe-spray and wipe-discard-wipe.

Spray-Wipe-Spray Technique:

- The spray-wipe-spray method is used on any environmental surfaces and equipment contacted, or that have the potential for Splash or splatters of OPIM.
- Electrical switches or the x-ray master control should not be sprayed with disinfectant because this may cause short circuiting.
- In this technique, the detergent/disinfectant is sprayed onto the surface, wiped clean, then sprayed on the same surface again and left untouched for the contact time specified by the manufacturer of the solution.
- Chair side equipment such as curing lights, air abrasion systems, ultrasonic scalars, intraoral cameras, intraoral scanners, and computer keyboards can potentially be damaged with sprays; therefore, barriers or a two-wipe method should be employed.

Wipe-Discard-Wipe:

- Disinfectant wipes are preferred to spray-on products because of the generation of unnecessary aerosols, which may cause Sensitization of staff and patients.
- Obtain a disinfectant towel from its container, close the container lid and vigorously wipe (clean) the surface.
- Discard the towel and obtain a fresh towel and wipe the surface again for disinfection.
- Discard the towel and let the surface dry. To reduce the risk of surfaces and objects becoming unnecessarily contaminated, equipment and supplies not needed during a particular patient's treatment should not be placed near the treatment area or on the counters.

Housekeeping Surfaces:

Housekeeping surfaces are those surfaces which are less likely to be contacted with contaminated gloves but may become contaminated with aerosols, spatter, or spills.

Examples of such surfaces are:

- Floors, walls and sinks. Because housekeeping surfaces have limited risk of disease transmission, they can be decontaminated with less rigorous methods than those used on dental patient-care items and clinical contact surfaces.
- The majority of housekeeping surfaces need to be cleaned only with a detergent and water or a disinfectant/detergent, depending on the nature of the surface and the type and degree of contamination.

Frequency of cleaning of housekeeping surfaces:

Floors and sinks should be cleaned daily

Walls, window coverings, and other vertical surfaces in healthcare areas should be cleaned and disinfected at least every 3 months. However, when housekeeping surfaces are visibly contaminated by patient material, prompt removal and surface disinfection should be carried out.

Personal Protective Equipment (PPE):

During cleaning and disinfection of environmental surfaces, staff should wear gloves and other PPE to prevent occupational exposure to infectious agents and hazardous chemicals.

Puncture resistant utility gloves offer more protection than patient examination gloves when using hazardous chemicals.

Cleaning and disinfectant solutions:

- Cleaning and disinfectant solutions should be prepared and stored correctly and in clean containers.
- The manufacturers' instructions for preparation and use should be followed closely.
- Solutions should be freshly diluted at the start of each work day. At the end of the day, any remaining solution should be discarded and the container scrubbed clean and allowed to dry to minimize bacterial contamination.

Mops and cloths:

- Mops and cloths should be cleaned and disinfected after use and allowed to dry before reuse.

Single-use, disposable mop heads and cloths may be used to avoid spreading contamination.

Non-disposable cleaning tools of the various areas within the healthcare facility (clinics, theatres, laboratories, hallways, offices, classrooms, and restrooms) should be separate and not mixed with those of other areas.

Managing Blood and Body Fluid Spillages:

All work locations where employees may come into contact with blood or other potentially infectious material must have blood spill biohazard equipment/kits available to safely and effectively clean up any spills.

The spill kit must include the following:

Personal protective equipment (PPE) such as gown, gloves, eyewear, mask

Supplies such as forceps, plastic scoop and scraper, absorbent granules or absorbent pads, healthcare setting-approved disinfectant, yellow plastic bag and sharp container.

The steps described below should be taken when cleaning and decontaminating spills of blood or other potentially infectious materials:

Control access to area:

Prevent people from walking through affected area and spreading the blood or other potentially infectious material to other areas. Use the signage for wet floor sign.

Contain spill:

- Use other absorbent granules or absorbent pads to contain the spill.
- Put on appropriate PPEs.

- Use plastic scoop or other mechanical means to remove any broken glass or other sharp objects from the spill area, and dispose into the sharp container
- Sprinkle absorbent granules over the spill and leave for two minutes or as per the manufacturer's recommended contact time. Allow the spill to solidify before removing.
- Remove the solidified waste material using the scoop and scraper and carefully dispose all contaminated materials into the infectious waste bag.
- If there are no available absorbent granules, contain the spill by placing absorbent pads (i.e. paper towel) on top of the spill and apply the appropriate disinfectant.
- To avoid creating aerosols, never spray disinfectant directly onto the spilled material. Instead, gently pour disinfectant on top of paper towels covering the spill or gently flood the affected area, first around the perimeter of the spill, then working slowly toward the spilled material. If sodium hypochlorite solution (5.25% household chlorine bleach) is used, prepare a fresh solution on a daily basis. Leave for the recommended contact time.
- Pick up all absorbent material and carefully place in the infectious yellow bag for disposal.
- Remove PPEs and place in a yellow bag for disposal.
- Seal the yellow bag.
- Wash hands thoroughly with soap and water.
- Contact housekeeping to clean the affected area with hospital-approved disinfectant.

Infection control in Environmental services

This policy is a guide for all housekeeping personnel to ensure full understanding on the best practice of environmental infection control in healthcare settings.

PURPOSE:

- To provide guidelines for Housekeeping staff to foster appropriate infection control.
- To maintain the center in a clean and sanitary manner.
- To protect employees who handle contaminated material.
- To reduce the risk of infection caused by environmental contamination

Scope: Applied to all housekeeping

Roles and Responsibilities:

- All housekeeping have responsibility to conform and respect all aspects of this policy.
- Housekeeping Managers have a key responsibility to ensure their unite functions within the parameters of the policy and that staff are trained and assessed in these issues.

DEFINITIONS:

Cleaning: Means reducing the reservoir of potential pathogenic organism

PROCEDURES

General Principles:

- Hands must be thoroughly washed before commencing work and after contact with toilets and hand basins. Refer to Hand hygiene policy.
- All mops, buckets, etc., must be clean and dry before commencing duty.
- Mop heads must be changed at the start of each shift. It should be laundered, disinfected and hanged to dry after each use.
- Cloth used for damp dusting must be disposable and should be discarded at regular intervals during the shift.
- Warm water and suitable detergents should be used for all floors cleaning. Water and detergent will be properly disposed of and renewed frequently
- Buckets containing water must never be left unattended. They may only be left empty and dry.

Cleaning Procedure:

- Under all circumstances, cleaning procedures will follow a set of pattern.
- The cleaning schedule may change, on the recommendation of the Housekeeping Service or the Infection Control unite.
- Certain areas may require more frequent cleaning times.

Cleaning Floors:

- Ideally, to avoid dispensing dust into the air, the floor must be dry mopped with the 100% cotton mop head using either the “forward pushing motion” or the “figure of 8 motion”. Handle the dry mop gently and NEVER shake it vigorously to avoid dispersal of dust

- Wet mop floor area with warm water and detergent using the “double bucket” technique.

Daily Duties:

- Clean floors.
- Empty, wash and reline waste bins.
- Clean hand basins, taps and mirrors.
- Replenish all box tissues, toilet tissues and bars soap (and as needed).
- Damp dust all furniture and fittings.
- Damp dust beds and locker areas.
- Spot clean walls and doors.
- Wash and dry door handles and clean all toilet walls

Weekly Duties

- Clean the elevator inside and out and spray
- High cleaning in corridors and office areas, including picture frames, door frames high ledges and curtain rails.
- Machine scrub and dry all ceramic tiled areas.
- Manually scrub and re-polish stairways.
- Clean offices.
- Check all curtains and change if soiled.

Monthly Duties

- Change curtains.
- Wipe clean walls in all patient examination rooms.
- Clean internal and external windows

Cleaning Frequency:

Corridors and Public Places

- Maximum continuous cleaning of high traffic areas, up to 8 hours daily.
- Maximum, continuous cleaning of low traffic areas, up to 2 hours daily.
- Toilet in these areas is to be inspected and cleaned at regular intervals during the 24-hour period. Frequency is to be decided as need.

Infection control policy in Sterilization unite

- **Sterilization of Patient Care Items**

- **Cleaning & sterilization of instruments:**
- **Transporting Contaminated Items**
- **Storing Sterile Items**
- **Opening of Instrument Packages**

Infection control policy in Sterilization unite

Sterilization of Patient Care Items

This policy is a guide for all healthcare personnel to ensure full understanding on the best practice of Sterilization and Disinfection of Patient Care Items.

Purpose:

- To prevent and minimize the risk of infection in healthcare settings.
- To promote awareness for each healthcare personnel in the importance of sterilization and disinfection of patient-care items.
- To provide a framework for the education of healthcare personnel in the infection prevention and control.

Scope:

This policy applies to all healthcare personnel.

Roles and Responsibilities:

- All healthcare workers have responsibility to conform and respect all aspects of this policy.
- Managers and unite heads have a key responsibility to ensure their unit functions within the parameters of the policy and that staff are trained and assessed in these issues.

Definitions:

Autoclave: an instrument for sterilization that uses moist heat under pressure.

Disinfection: a process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects in healthcare settings.

High-level disinfectant: a liquid chemical germicide registered by the MOH and used in the disinfection process for critical and semi critical patient-care devices. It inactivates vegetative bacteria, mycobacteria, fungi, and viruses, but not necessarily high numbers of bacterial spores.

Sterilant: a liquid chemical germicide that destroys all forms of microbiological life, including high numbers of resistant bacterial spores.

Sterilization: the destruction or removal of all forms of life, with particular reference to microbial organisms. The limiting factor and requirement for sterilization is the destruction of heat-resistant bacterial and mycotic spores.

Procedure:

❖ Cleaning & sterilization of instruments:

- The Clinic nurse or dental assistant will Separate contaminated instrument from sharp instrument and arrange the contaminated instrument in a way to be set up & parallel to each other in a tray ;where the sharp instrument are discarded in a sharp container.
- The clinic nurse/dental assistant will caught the contaminated instrument with Micro-Zima Pre-clean & transport gel or spray then put the tray in a closed container then wrap the container with blue sheet napkin where an identification tag sticker will be placed on the napkin; the nurse/ assistant can use a holding solution instead of the gel with a rigid leak proof container then wrapped in the same way
- The clinic nurse/dental assistant will transport the wrapped container to the sterilization unit using trolley
- The clinic nurse delivers the tools to the sterilization official through the outside window so that the nurse does not enter the contaminated area
- The sterilization nurse/technician in the dirty zone will be wearing protective personal equipment's (PPE) (Gowns ,masks ,face shield, heavy duty gloves, plastic apron & closed rigid shoes)
- **The sterilization nurse will read the identification tag carefully then unwrap the container from the then do the following steps:**

❖ Open the container & rinse the dirty instrument with water
❖ The nurse will open all hinges, box locks, instruments with removable parts are disassembled
❖ Place the instruments in mesh trays and then do the washing process
❖ Use along handle with hand guard &wide surface soft nylon bristles
❖ Scrub while the instruments are submerged in a cold cleaning solution to a void spattering; keeping the items above water line to allow visibility of sharp ends
❖ Use other cleaning tools to remove the remnants from instruments to reach places like hinges, joints & serrations.
❖ If the debris has been allowed to dry on instrument surface, soak instrument to remove the adherent remnant then restart scrubbing the instrument.
❖ Finally Rinse the instruments thoroughly with deionized water & be sure that all the hinges, joints& serrations are clear.
❖ Allow the instruments to air dry or carefully pack them with thick disposable napkins; do not rub or roll the instrument in the napkin
❖ If instruments cannot be cleaned immediately, use a holding solution; the solution will be prepared and kept as manufacture instructions considering the maximum use for the solution is 24 hrs. & immediately changed when it gets clouded.
❖ The trolley used for transporting the contaminated instrument will be washed by sterilization nurse in the dirty zone using a special cleaning & drying device; the trolley has an isolated

corridor in the sterilization unit, then the trolley will be pulled outside the sterilization unit by the sterilization nurse in the clean zone

- ❖ If the instruments cannot be sterilized in the same day, clean &dry the instruments then wrap them with disposable napkin & clearly label them as unsafe then continue processing the next working day; the nurse/technician will start processing these instruments from the cleaning steps
- ❖ The sterilization technician will transfer the instrument from the dirty area to the clean area for inspection and follow these steps
- ❖ The nurse will remove the plastic gown &heavy-duty gloves then perform hand hygiene and wear another glove.
- ❖ The nurse/technicians will organize clean & dry instruments into sets
- ❖ Inspection should be under magnification & suitable light to identify minor problem.
- ❖ The technician will look for retained soil ،misalignment ،defects such as (bent tips breakage ،burrs ،nicks ،cracks ،warn spots ،pitting or missing pieces) ، roughness or dullness of edges ،warn or loose box screws, staining, corrosion & malfunction during inspection.
- ❖ When a defective instrument is discovered it should be tagged or marked, removed from the set & sent for repair or sent for impair report after sterilizing it

- **The sterilization technician will start packing immediately after assembling to prevent subsequent contamination; the nurse/ technician will change the gloves and perform a hand hygiene then start packing regarding these conditions:**
- The sterilization pack used in the process is a peel pouch has a paper side & a plastic side; the paper side has a chemical indicator, therefore the peel pouch presented with a self-sealing or closed with a sealing devise

- ❖ Avoid crowding the items in the pack; each pack will have 4-5 instruments as max. To allow steam to reach each surfaces & 4-5 pieces of gauze as max. In each pack as it is a dense material is more difficult to dry
- ❖ Choose the correct pouch size slightly larger than its content
- ❖ Place a chemical integrator inside each pouch other than the one on the paper side of the pouch; placed where it is easy to be visible
- ❖ The nurse will write the date of sterilization including the day , month, and year
- ❖ The nurse will assure that every pouch is perfectly sealed, not crowded & with no defects before loading the instruments into the autoclave.

The sterilization technician will start loading the peel pouches inside the autoclave & follow these steps:

Each pouch should be as the paper side is facing a plastic side of the other pouch (plastic to paper) In the autoclave rack; the paper side is the side facing the rack.

- ❖ The loading will be according to the size of autoclave & the size of pouches as the medium size 6-8 medium pouches in each rack & 14 small pouches in each rack of a medium autoclave.

- Close the autoclave door accurately &Start the sterilization cycle of the autoclave as manufacture instruction considering the need of short or long cycle
- Ensure that the sterilization cycle includes a drying stage.
- Use a steam under pressure autoclave so air will be forced outside of the chamber.

The sterilization technician will unload the autoclave after finishing the cycle regarding these steps:

- The nurse will perform hand hygiene and wear heat resistant gloves.
- The door is opened immediately after the drying cycle is finished to prevent small amount of steam vapor condensing if the load cools while the door is closed.
- Allow steam and vapor to exit the autoclave then remove each tray from autoclave rack.

The clinic nurse / assistant will store the sterile pouches as follow:

- Should be on cupboards or shelves that at least 8- 10 inches from the floor, 18 inches from the ceiling and 2 inches from outside walls
- Do not allow packaging to be crushed, bent, compressed, punctured or compromised in any way.
- Take care to avoid storage near exposed water pipes, sinks or other areas where water damage could occur.
- Keep the storage area free of dust insect's vermin & temperature, humidity extremes & protected from direct sun lights
- Ambient humidity should not exceed 70% & the temperature should not exceed 24°c.
- Never store the sterile pouch on a bench or hand the pouches with wet hand.
- Stored instrument should not exceed ١٤ days for safety
- Store the instruments in a closed or covered cabinets where the most recent pouches in the rear of the cabinets.
- The clinic nurse or dental assistant will receive the sterile instrument pouches or gauze & cotton pouches using trolley that will deliver the pouches to the clinic.

Before using any sterilized pouches the clinic nurse or dental assistant will check for the following

- The outer wrapping & seals are intact.
- The pouch is dry.
- Labeling is intact & correct.
- If the pouch is moist, damaged or has a process indicator did not change color correctly, do not use the content; open the pouch & return it to re-start the decontamination process (re-do from cleaning step).

Transporting Contaminated Items

Procedure:

The following recommendations should be applied when transporting contaminated instruments:

- Contaminated items should be sent to CSSD as soon as possible after use.
- If the items will not be sent to the CSSD immediately, a transporting gel should be applied on the instruments while keeping it in the clinic.
- Tissues, blood, and material debris should be removed from the contaminated instruments (by wiping with gauze) as soon as possible, prior to transport to the decontamination area.
- All disposable items should be removed from the kit prior to transportation.
- Transport of contaminated items from the point of use to the CSSD should be in an appropriate container to minimize the risk of percutaneous injury.
- The transport container should be puncture resistant and of adequate size and depth for the items to be stable and rest safely within the container without protruding beyond its edges.
- The transport container should be covered and locked.
- The transport container should be considered contaminated. (Biohazard logo should be posted on the container).
- During transport of items to the CSSD, the courier's gloves, contaminated items, and container should not contact any surface in the way to the CSSD.
- Once the contaminated items have returned to the CSSD, the courier must remove the contaminated gloves and perform hand hygiene.

Storing Sterile Items

Procedure:

Storage:

- All decontaminated and sterilized items must be stored in such a way that their integrity and decontaminated state is maintained.
- Storing conditions of sterile packages:
- The sterile packages should be stored in covered or closed cabinets in dry, enclosed, low-dust areas protected from obvious sources of contamination.
- The packages should be stored away from heat sources that may make the packaging material brittle and more susceptible to tearing or puncture.
- The packages should be protected from sharp objects that may puncture or tear the packaging.
- Care must be taken that the storage area is not exposed to moisture, so the packages should not to be stored next to or under sinks, under water or sewer pipes, or in any location where they can become wet.
- Items should be positioned so that packaging is not crushed, bent, compressed, or punctured and so that their sterility and integrity is not otherwise compromised.

- Use of the instrument packs should be on a first-in/first-out basis, i.e. the freshly sterilized packages are placed at the back so the previously sterilized packages are used first.

Transport of sterilized items to clinics:

- Sterilized packages should be allowed to cool down before they are transported.
- Transport of items from the CSSD to the clinics or other units should be within closed solid walled containers, or in covered or enclosed carts with solid bottom shelves to protect them from exposure to environmental contaminants along the transportation route.

Opening of Instrument Packages

Procedure:

The following recommendations should be applied prior to opening of instrument packages:

- Before opening instrument packages, the packages must be examined to ensure the seal is intact, and the integrity of the package is not broken in any way (e.g. Through tears, perforations, or wetness).
- The instrument packages should be opened without touching the instruments
- The packages should be opened with clean, ungloved hands after the patient is seated and then put on gloves just before first contact with the patient's mouth.
- If the instrument package was opened with gloved hands, the gloves will become contaminated with any microorganisms on the outside of the packaging. If it's necessary to manipulate instruments just before patient treatment begins (e.g. arranging bagged instruments on the bracket table), the instruments should be handled with sterile tongs.

The following recommendations should be applied after opening of instrument packages:

- The internal chemical indicator must be checked to ensure the sterilization conditions have been reached within the package.
- .If the chemical indicator does not indicate that sterilization parameters have been met, the items should not be used for patient care and the package, along with the internal indicator, must be returned to the CSSD and the incident reported to the CSSD supervisor.

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