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DENTAL SCIENCE & RESEARCH

INFECTION CONTROL POLICY

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Infection Control Policy

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1. INTRODUCTION

Healthcare-associated infection (HAI), previously referred to as "nosocomial" or "hospital" infection, occurs in a patient during the process of health care. Transmission of infectious agents among patients and dental health care personnel (DHCP) in dental settings, although rare, has occasionally been reported.

Effective infection prevention and control is central to providing high quality health care for patients and a safe working environment for those that work in dental healthcare settings.

Policy: To ensure the risk of contracting infection is reduced to zero level.

Purpose: The primary goal of an infection control program is to prevent infection and provide a safe working environment that will reduce the risk of healthcare-associated infections among patients and occupational exposures among dental health care personnel.

This document outlines the broad principles and practices of infection control that are implemented for the prevention and management of infection.

It is relevant to all dental health care personnel including Dentists, Dental hygienists, Dental assistants, Dental laboratory technicians. Also students, post graduate trainees, and persons not directly involved in patient care but potentially exposed to infectious agents (e.g., administrative, clerical, housekeeping, maintenance personnel

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2. HOSPITAL INFECTION CONTROL PROGRAM

Prevention of Healthcare-associated infections in patients is a concern of everyone in the College and is the responsibility of all dental health care personnel.

The Hospital Infection Control Policies are framed and practiced and monitored by the Hospital Infection Control Committee.

2.1 INFECTION CONTROL COMMITTEE

The Institutional infection Control Committee is responsible for establishing and maintaining infection prevention and control, its monitoring, surveillance, reporting, research and education.

The Infection Control Committee and Subcommittee includes representatives from all clinical departments and other disciplines

This committee shall meet regularly - once a month and as often as required.

Structure

- Administrator
- Chairperson (HIC in charge)
- Quality manager
- IQAC coordinator
- HIC committee members
- HIC subcommittee members
- HIC sister- in -charge

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Infection Control Team

The Infection control team consists of:

- HIC subcommittee members (All departments)
- Quality manager
- HIC sister- in -charge

ICT takes daily measures for the prevention and control of infection.

The Departmental Duties Schedule will outline process, responsible personnel and schedule of performance of duties related to infection control.

Subcommittee members from all departments have specific areas allotted for them to monitor daily and the HIC sister in charge shall report daily to the quality manager, who will address the matter and action is taken after approval from HIC in charge and administrator.

The Quality Manager and Sister -in -charge also reviews all infection control activities on a weekly basis.

2.2 RESPONSIBILITIES OF THE INFECTION CONTROL TEAM

- Develop a manual of policies and standard operating procedures for aseptic, isolation and antiseptic techniques.
- Supervise and monitor cleanliness and hygienic practices
- Oversee sterilization and disinfection and monitor the use and quality control of disinfectants
- Advise management of at risk patients and supervision of isolation procedures.

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- Waste management – Provide relevant information on infection problems to management.
- Organize regular training programme for the staff to ensure implementation of infection control practices
- Audit infection control procedures and antimicrobial usage
- Surveillance of healthcare associated infections

2.3 INFECTION PREVENTION EDUCATION AND TRAINING

Infection Prevention Education and Training are critical for ensuring that infection prevention policies and procedures are understood and followed.

To ensure this the following measures are carried out at the institution:

a. Training on principles of both DHCP safety and patient safety.

b. Job- or task-specific infection prevention education and training to all dental health care personnel.

c. Training during orientation to the setting and at regular intervals (e.g., quarterly, annually).

d. Infection control training to undergraduate students during orientation to clinics and to postgraduates on course commencement, and at regular intervals

e. Training records are maintained as part of the institutional infection control program and NABH

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2.4 MAINTENANCE OF INFECTION CONTROL RECORDS

Following registers are maintained in all the Departments for smooth conduct of infection control procedures. Registers are monitored on regular basis (weekly) by HIC nurse and Quality Manager.

1. Fumigation
2. Hypochlorite 1%
3. Spillage management register
4. Sterilization
5. Betadine gargle
6. Needle stick injury
7. Glutaraldehyde
8. IMAGE
9. Waste Disposal

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3 INFECTION CONTROL PROCESSES

STANDARD PRECAUTIONS

Standard Precautions are the minimum infection prevention practices that apply to all patient care, regardless of their diagnosis. Standard Precautions shall be implemented when contact with any of the following are anticipated:

- Blood
- All body fluids, secretions and excretions, with the exception of sweat regardless of whether or not they contain visible blood.
- Non-intact skin (this includes rashes)
- Mucous membranes

Standard Precautions include—

A. Hand hygiene.
B. Use of personal protective equipment (e.g., gloves, masks, eyewear).
C. Respiratory hygiene/cough etiquette.
D. Sharps safety (engineering and work practice controls).
E. Safe injection practices (i.e., aseptic technique for parenteral medications).
F. Sterile instruments and devices.
G. Clean and disinfected environmental surfaces

A. HAND HYGIENE

Hand hygiene is one of the most important methods to prevent the spread of infectious agents in health care facilities. Education and training programs should thoroughly address indications and techniques for hand hygiene practices before performing routine and oral surgical procedures.

For routine dental examinations and nonsurgical procedures, use water and plain soap (hand washing) or antimicrobial soap (hand antisepsis) or use an alcohol-based hand rub.

Although alcohol-based hand rubs are effective for hand hygiene in health care settings, soap and water should be used when hands are visibly soiled (e.g., dirt, blood, body fluids).

For surgical procedures, perform a surgical hand scrub before putting on sterile surgeon's gloves.

GUIDELINES for HAND HYGIENE

1. Perform hand hygiene—

    a. When hands are visibly soiled.

    b. After barehanded touching of instruments, equipment, materials, and other objects likely to be contaminated by blood, saliva, or respiratory secretions.

    c. Before and after treating each patient.

    d. Before putting on gloves and again immediately after removing gloves.

2. Use soap and water when hands are visibly soiled (e.g., blood, body fluids); otherwise, an alcohol-based hand rub may be used.

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B. PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) refers to wearable equipment that is designed to protect DHCP from exposure to or contact with infectious agents. These include gloves, face masks, protective eye wear, face shields, and protective clothing (e.g., reusable or disposable gown, jacket, laboratory coat).

- **Use of gloves:** for all possible contact with blood or body fluids, mucous membranes, non-intact skin or other potentially infectious materials (OPIM). Wear the correct size and type of glove (eg. patient exam gloves, surgeon's gloves, non-medical gloves for the appropriate procedure due to penetrability variations. Gloves are removed before dental health care provider leaves patient areas.
- **Face Mask, eye protection & face shield:** Use of mouth, nose, and eye protection during procedures that are likely to generate splashes or sprays of blood or other body fluids. These are used when operating hand pieces, ultrasonic scalers, and air-water syringes that create visible spray.
- **N95 Respirators:** Respirators are masks specifically designed to filter small particles spread by the airborne route, mandatory for patient care in the Covid pandemic.
- **Gown or Apron or PPE kit:** To protect skin and clothing during procedures or activities where contact with blood or body fluids is anticipated. DHCP should be trained to select and put on appropriate PPE and remove PPE so that the chance for skin or clothing contamination is reduced.

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Hand hygiene is always the final step after removing and disposing of PPE

GUIDELINES FOR PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. Provide sufficient and appropriate PPE and ensure it is accessible to DHCP.

2. Educate all DHCP on proper selection and use of PPE.

3. Wear gloves whenever there is potential for contact with blood, body fluids, mucous membranes, non intact skin or contaminated equipment.

   a. Do not wear the same pair of gloves for the care of more than one patient.

   b. Do not wash gloves. Gloves cannot be reused.

   c. Perform hand hygiene immediately after removing gloves.

4. Wear protective clothing that covers skin and personal clothing during procedures or activities where contact with blood, saliva, or OPIM is anticipated.

5. Wear mouth, nose, and eye protection during procedures that are likely to generate splashes or spattering of blood or other body fluids.

6. Remove PPE before leaving the work area.

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C. RESPIRATORY HYGIENE/COUGH ETIQUETTE

Respiratory hygiene/cough etiquette infection prevention measures are designed to limit the transmission of respiratory pathogens spread by droplet or airborne routes. Respiratory hygiene/cough etiquette measures were added to Standard Precautions in 2007.

GUIDELINES FOR RESPIRATORY HYGIENE/COUGH ETIQUETTE

- Implement measures to contain respiratory secretions in patients who have signs and symptoms of a respiratory infection, beginning at point of entry

a. Post signs at entrances with instructions to patients with symptoms of respiratory infection to Cover their mouths / noses when coughing or sneezing.
b. Use and dispose of tissues.
c. Perform hand hygiene after hands have been in contact with respiratory secretions

D. SHARPS SAFETY

Consider sharp items (e.g., needles, scalers, burs, lab knives, and wires) that are contaminated with patient blood and saliva as potentially infective and establish engineering controls and work practices to prevent injuries.

GUIDELINES FOR SHARPS SAFETY

1. Do not recap used needles by using both hands or any other technique that involves directing the point of a needle toward any part of the body.
2. Use either a one-handed scoop technique or a mechanical device designed for holding the needle cap when recapping needles (e.g., between multiple injections and before removing from a non-disposable aspirating syringe).
3. Place used disposable syringes and needles, scalpel blades, and other sharp items in appropriate puncture-resistant containers located as close as possible to the work area.

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F. SAFE INJECTION PRACTICES

Safe injection practices are a set of measures dental health care personnel should follow to perform injections in the safest possible manner for the protection of patients. DHCP most frequently handle parenteral medications when administering local anesthesia.

GUIDELINES FOR SAFE INJECTION PRACTICES

1. Prepare injections using aseptic technique in a clean area.
2. Disinfect the rubber septum on a medication vial with alcohol before piercing.
3. Do not use needles or syringes for more than one patient
4. Medication containers (single and multidose vials, ampules, and bags) are entered with a new needle and new syringe, even when obtaining additional doses for the same patient.
5. Use single-dose vials for parenteral medications when possible.
6. Do not combine the leftover contents of single-use vials for later use.
7. Date multidose vials when first opened and discard within 28 days, unless the manufacturer specifies a shorter or longer date for that opened vial.

G. STERILE INSTRUMENTS AND DEVICES.

- Patient-care dental instruments, devices, and equipment are categorized as critical, semicritical, or noncritical, depending on the potential risk for infection associated with their intended use.
- Each Department has policies and procedures in place for containing, transporting, and handling instruments and equipment that may be contaminated with blood or body fluids.
- Sterilization and Disinfection is detailed in the section on sterilization.

H. CLEAN AND DISINFECTED ENVIRONMENTAL SURFACES

- Cleaning should always precede disinfection.
- Policies and procedures for routine cleaning and disinfection of environmental surfaces are included as part of infection prevention.
- Cleaning and disinfection is emphasized for clinical contact surfaces (e.g., frequently touched surfaces such as light handles, bracket trays, switches on dental units, computer equipment) in the patient-care area. These should be barrier protected or cleaned and disinfected between patients.

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4. STERILIZATION AND DISINFECTION

4.1 GENERAL GUIDELINES

Instruments/equipment are categorized as critical, semi-critical, or non-critical, depending on the potential risk for infection associated with their intended use.

- **Critical** instruments/equipment (penetrating skin or mucous membrane) should undergo sterilization before and after use. e.g. surgical instruments
- **Semi-critical** instruments /equipments (contact intact mucous membrane without penetration) should undergo high level disinfection and intermediate level disinfection after use. Because the majority of semi-critical items in dentistry are heat-tolerant, they should also be sterilized using heat.
- **Non-critical** instruments /equipments: require only intermediate or low level disinfection

- *Note: **Dental handpieces** should always be heat sterilized between patients, although these devices are considered semi-critical.*
  ***Digital radiography** sensors should be protected with a barrier to reduce contamination during use, followed by cleaning and heat-sterilization or high-level disinfection between patients*

4.2 CLEANING

Cleaning removes large numbers of microorganisms from surfaces. All items are cleaned first, before attempting disinfection or sterilization.

4.3 DISINFECTION

a. Intermediate level disinfectants are the lowest level disinfectants used by staff.

b. Intermediate level disinfection is used on all non-invasive equipment that contacts intact skin.

c. Dental units and equipment are disinfected when visibly soiled or daily.

d. Intermediate level disinfectants used are labelled as tuberculoidal by the manufacturer.

4.4 STERILIZATION:

a. Sterilization is employed for reusable items that penetrate tissue, bone, or pulp or that contact mucosal surfaces.

b. ALL ITEMS TO BE STERILIZED ARE POUCHED & DATED.

c. Bags are not overstuffed; (this may hinder proper and complete sterilization of all surfaces).

4.5 INSTRUMENT PREPARATION

Blood/OPIM is not allowed to dry on instruments.

4.6 PROPER USE OF HOLDING SOLUTION:

The main function of holding solution is to serve as a wetting agent to prevent drying of blood, serum, saliva, and other debris on instruments, thereby ensuring more efficient and thorough cleaning.

The use of an ultrasonic bath is the preferred method of pre-cleaning instruments because it cleans effectively, and limits contact with sharps.

Note: *Always use heavy duty, rubber utility gloves when handling instruments.*

Procedure:

a. Holding trays containing instruments are stored away from clean and sterile instruments.

b. Holding solution is changed at the end of each day.

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4.7 STERILIZATION PROCESS

Steam autoclaves are employed for all instruments requiring sterilization.

Note: *Disadvantage - Steam can rust cutting edges made of carbon steel. Rusting can be minimized by use of anti-rust agents before sterilizing (distilled water).*

4.8 STERILIZATION MONITORING

a. Process Indicators

- Each time a batch is run, checks are made that the proper temperature and pressure is reached by viewing the dials.
- An external process indicator is present on each bag to be sterilized.
- An internal process indicator is placed in one bag of instruments for each batch processed to check sterilization uniformity.
- If only one of the external process indicators shows correct color change, the bag of instruments is re-bagged and reprocessed.
- If internal process indicator shows incorrect color change, the instruments are re-bagged and reprocessed.
- Instruments are allowed to cool, undisturbed on a rack to avoid contamination.

b. Biological Indicators

Biological indicators, or spore tests, are the most accepted method for monitoring the sterilization process because they assess the sterilization process directly by killing known highly resistant microorganisms (e.g., *Geobacillus* or *Bacillus* species). Biological monitoring is conducted once each week to test reliability of steam autoclaves

Exceptions: EXCEPTIONS must be DOCUMENTED, with a written explanation, and kept with other recordings of biological indicator testing. Exceptions include:

(1) If no patients were seen, and no instruments are processed last week;

(2) If in any particular week, an unusually small number of cycles are performed, and it is believed by the operator that the autoclave is functioning well, and achieving sterilization.

c. Record Keeping

- A log is kept to record each time/date when biological monitoring is conducted.
- An outside service is employed to conduct the bacterial spore test.
- A designated employee is named and responsible for maintaining supplies and materials for proper sterilization of instruments to ensure compliance with standards.

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5. ENVIRONMENTAL INFECTION PREVENTION AND CONTROL

5.1 Routine cleaning and disinfection of environmental surfaces is to be followed as part of infection control.

Clinical Contact Surfaces (e.g., light handles, bracket trays, switches on dental units)

a. Use surface barriers to protect clinical contact surfaces, and change surface barriers between patients.

b. Clean and disinfect clinical contact surfaces that are not barrier-protected with disinfectant after each patient.

Housekeeping surfaces (e.g., floors, walls, sinks)

a. carry less risk of disease transmission than clinical contact surfaces and can be cleaned with soap and water or
b. cleaned and disinfected if visibly contaminated with blood.

5.2 HOUSEKEEPING:

General Duties:

- Disposal of non-infectious waste, dusting, and floor-care shall be accomplished daily or sooner if necessary.
- Cleaning of dental equipment, sinks and work surfaces is done daily using germicidal solution.

a. Laundry:

- A container or bag that is recognizable as containing hazardous contaminated laundry is provided and used.
- Gloves are used when employee handles laundry.

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- The operating dental unit has a laundry designate/s responsible for laundry, both its handling and cleaning.
- The handing of laundry is outlined in the designates' written job classification.

b. Housekeeping:

Assign a supervisor to oversee a written schedule for cleaning and decontaminating work surfaces.

a. A supervisor ensures that a daily schedule or routine for cleaning is followed
b. A written checklist is used.
c. Specific instructions are listed.

c. Cleaners or disinfectants used are listed.

6. DENTAL OPERATORY INFECTION CONTROL

The dental operatory should be well ventilated. General cleanliness should be maintained.

6.1 AT THE BEGINNING OF THE DAY:

- Wash hands and put on nitrile gloves
- Flush water lines for 30 seconds
- Wipe down chair, bracket tray, x-ray machine, countertops, and operator chairs
- with detergent solution and disinfecting wipe
- Place barriers on chair, x-ray machine, laptop, light handles, and other places frequently touched during treatment
- Obtain sterile instruments from drawer and other materials needed for appointment, drawers and cabinets are not to be opened with contaminated gloves at any time
- Remove nitrile gloves and wash hands.

6.2 AFTER PATIENT:

- Wash hands and place nitrile gloves
- Place dirty instruments in impervious hard container with lid and transport to dirty room for processing.
- Remove barriers carefully, folding them inward
- Spray entire operatory with detergent spray and allow to sit while flushing water lines for 30 seconds *
- Wipe operatory with dry paper towel and wipe with disinfecting wipe
- Change nitrile gloves, hand washing in between glove change.
- Follow the beginning of day procedure starting from *

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6.3 AT THE END OF THE DAY:

- Clean operatory as indicated above, additionally:
- Do HVE cleaner, per manufacture's recommendations
- Place operatory chair in upright position with light placed over bracket tray to indicate clean operatory

6.4 TWELVE CRITERIA TO BE FOLLOWED REGULARLY:

i. Barrier protection is used at all times.
ii. Gloves are worn when handling blood and OPIM (Other Potentially Infectious Materials).
iii. Gloves are changed between patients regardless of the visible state of the gloves.
iv. Facial protection is worn in procedures in which splashing or aerosolizations occur.
v. Hands are washed with soap before and after removing gloves.
vi. Hands are washed if hands have been accidentally contaminated and upon leaving the workstation.
vii. Accidental injuries are avoided by planning procedures ahead, before their initialization.
viii. Rigid, puncture resistant containers are used for sharps.
ix. Personnel DO NOT handle needles unnecessarily.
x. Device is available to avoid mouth-to-mouth contact in resuscitation.
xi. Sound work practices are incorporated to MINIMIZE splatter.
xii. After each patient use all surfaces and devices are decontaminated

6.5 DENTAL UNIT WATER

Dental unit waterlines (i.e., plastic tubing that carries water to the high-speed handpiece, air/water syringe, and ultrasonic scaler) promote bacterial growth and development of biofilm, and could cause adverse health effects.

1. Use water that meets standards for drinking water (i.e., ≤ 500 CFU / mL of heterotrophic water bacteria) for routine dental treatment.
2. Back- flush the suction pipe with 1% sodium hypochlorite with the help of disposable cups for 20 30 seconds thrice a day.
3. Flush all 3 in 1 syringes, water outlets, hand piece water pipes, etc with disinfectant solution for 30-40 seconds
4. 3. Use sterile saline or sterile water as a coolant / irrigant when performing surgical procedures.

6.6 INFECTION CONTROL DURING RADIOGRAPHIC PROCEDURE

- Heat-tolerant versions of intraoral radiograph accessories are available and these semi-critical items (e.g. film-holding and positioning devices) should be heat-sterilized before patient use.

- Radiography equipment (e.g. radiograph tubehead and control panel) should be protected with surface barriers that are changed after each patient OR, should be cleaned and then disinfected after each patient use.

7. COVID -19 PROTOCOL FOR INFECTION PREVENTION AND CONTROL

Hand Sanitisation, Masks To Be Ensured At Main Entrance Of Hospital

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Patients entry guided using Token system

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PRE-SCREENING
Along with Thermal Scanning, Hot Spot Matching and Dental Complaint Questionnaire by Pre- screening team.

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Symptomatic Patient / Confirmed Covid Positive Patient will be referred to the concerned hospital for management and a symptomatic patients will be send to registration desk

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Registration of Pre-screened Patients

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New patients/ Re-visit

↓

Patient referred to the comprehensive clinics

↓

Complete Screening and Dental Screening and radiological investigation done by the OMR faculty

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Patient referred to respective specialty faculties in the comprehensive clinic based on clinical findings & treatment priority

Orthodontics	Pedodontics	Periodontics	Oral Surgery	Prosthodontics	Endodontics	Public Health Dentistry

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7.1 GENERAL GUIDELINES TO BE FOLLOWED DURING COVID-19

Hospital Main Entrance

- Patients perform **hand hygiene at the entry gate** and **wearing of mask is** mandatory for all patients and /or bystanders entering the hospital campus.
- Only patients are allowed inside the hospital. Patients with disabilities, senior citizens, minor patients, differentially abled patients and patients undergoing surgical treatment can be accompanied by only one bystander.
- Patients are **not allowed** to carry any **extra belongings, bags** etc. inside the hospital building. Mobile phones to be kept in the bag, pocket or outside and should not be used.
- All patients and bystanders entering the hospital building are being guided to the respective pre-screening stations. Minimum two meter (Six feet) distance maintained at all times between the patient and the pre-screening station.
- Proper Queue management done in pre-screening area with minimum of two meter distance.

Pre-screening area:

- The patient is directed to wash/ sanitize their hands.
- After hand washing patient should wear gloves if available and advise them not to touch anywhere.

All patients are screened for the following:

- Residential address of the patient for **Hot Spot Matching.**
- Body temperature of all patients monitored using a thermal scanner.
- Patients with any symptoms suggestive of Covid-19 are referred to Covid treatment facility.

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- Dental Needs Assessment. The dental needs will be divided into Emergency & Elective Care **(Annexure 1)**

- Consent forms to be explained and to be signed by every patient cleared in Pre- screening. Patients for emergency treatment / appointments will be sent to the registration desk.

Registration Desk

- The Registration of New and Old Patient carried out by maintaining social distancing.

Complete Screening and Dental Screening Of Patient

- This will be done on the basis of clinical examination. The dental needs will be divided into emergency and elective procedures (Annexure 1).

- Emergency patients which need dental surgical intervention will be identified and managed accordingly.

Departmental Reception / Waiting Area

- **Hand hygiene** to be maintained either by washing or by hand rub.

- CLINIC design and Infrastructural requirements:-

- Minimum 1-2 meters distance between each seat in patient waiting area.
- Maximum seats in the waiting area restricted to 20.
- Good air ventilation should be ensured by using natural ventilation sources / mechanical ventilation using fans /exhaust.
- Physical barrier like screens should be considered

PPE Requirements: Gown .Head Cap, Gloves, Surgical Mask

- Gloves to be changed after every patient

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7.2 CLINICS

Clinic Disinfection Protocol

- Fumigation to be done
- Clinics, including the table surfaces, chair surfaces and door handles should be wiped after every 1 hour with 1% Sodium Hypochlorite solution using clean cloth.
- Water inlet bottle to be filled with 0.01% sodium hypochlorite
- Keep open as many doors as possible to avoid touching ofdoorknobs.
- Every hour mop the floor with 1% Sodium Hypochlorite after surface disinfection using separate mop for non-clinical area following unidirectional mopping technique from inner to outer area. Wash and disinfect the mop with clean water and 1% Sodium Hypochlorite and leave it for sun-drying.
- Dental chair unit and all contact areas like tables, chairs, working stools, etc. to be wiped with disinfectant before and after each patient.

Pre-Treatment Protocol

- The Assistant will guide the entry of the patient inside the clinic along with the OPD card.
- The patient is instructed to strictly keep the foot wear outside.
- Any belonging of the patient should be submitted to the guard before entering the OPD clinic.
- The water-inlet bottle is filled with 0.01% Sodium Hypochlorite solution.
- Mouth of the patient is rinsed with 1.5% hydrogen peroxide or 0.2% Povidine for 1minutes as a pre-procedural mouth rinse and then gargles are done for another 30 seconds. Disposable cups can be used for mouth rinse.
- Patient's face to be wiped with Betadiene.

Patient Placement

- Minimum 6 ft distance between 2 chairs; alternate chairs to be blocked in multi chair clinics.

Clinic area Design

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- A separate area to be dedicated for aerosol generating procedures as when required
- Avoid use of air or water spray as far as possible

7.3 INFECTION CONTROL PROTOCOL TO BE FOLLOWED AFTER EVERY PATIENT

- After the patient leaves the treatment room, Assistant will collect all hand instruments immediately, rinse them in running water to remove organic matter and dip in into Cidex Solution for 30 minutes.
- All 3 in 1 syringes, water outlets, hand piece water pipelines, etc. Should be flushed with the disinfectant solution for 30-40 seconds.
- Remove the Water containers and wash it thoroughly and disinfect with 1% Sodium Hypochlorite using clean cotton/ gauge piece and then fill it with fresh 0.01% Sodium Hypochlorite solution and attach back to the dental chair.
- Then, disinfect the Dental Chair along with all the auxiliary parts within 3 feet of distance using 1% Sodium Hypochlorite and Clean and sterilized cotton/gauze piece using inner to outer surface approach and leave for drying. New cotton/ gauze piece should be used for every surface. The areas include clinical contact surfaces and house keeping surfaces.
- Hand pieces should be cleaned using hand piece cleansing solution to remove debris. Hand piece should be lubricated followed by packing in the autoclave pouches for autoclaving. Record to be maintained for the same.
- Used burs should be soaked in Cidex Solution for 30 minutes, wash, dry and pouch it before autoclaving.

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- IMPRESSIONS should be thoroughly disinfected immediately using appropriate disinfectant spray before pouring or sending to the laboratory.

- Remove the Visible pollutants completely before disinfection. Mop the floor with 1% Sodium Hypochlorite solution through separate mops for clinical area following Unidirectional mopping technique from inner to outer area. Wash and disinfect the mop with clean water and 1% Sodium Hypochlorite and leave it for sun-drying.

7.4 END OF THE DAY - POST TREATMENT AND DISINFECTION PROTOCOL

- **Back-flush the Suction pipe** with 1% Sodium Hypochlorite with the help of disposable cups for 20-30 seconds thrice a day.

- All the instruments should be dipped in Cidex solution for 30 minutes, rinsed and brushed thoroughly to remove the debri,wash, dry and packed in pouches for autoclaving .
- **Autoclave** all the autoclavable instruments and store them in designated cabinet after the process.

- **Flush** all 3 in 1 syringes, water outlets, hand piece water pipelines, etc. with the disinfectant solution for 30-40 seconds.

- Remove the visible pollutants completely before disinfection. No dry brooming is to be done. Only wet mopping is advised.

- Mop the floor with 1% Sodium Hypochlorite solution through separate mops for clinical area following unidirectional mopping technique from inner to outer area. Wash and disinfect the mop with clean water and 1% Sodium Hypochlorite and leave it for sun-drying.
- Fumigate the room at the end of the day.

- Follow spill management protocol in case of spills (Contact time of 1% Sodium Hypochlorite will be 30 minutes)

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7.5 GENERAL GUIDELINES FOR DENTAL STAFF

- The team will perform hand hygiene once they enter the hospital building and after entering the respective clinics
- The team wearing PPEs is not allowed to leave the clinic.
- The treating doctor will change the PPE at lunch time and another treating doctor will resume the treatment process post lunch.

7.6 PPE REQUIREMENT

- Donning of PPEs will be done in the **donning room** only.
- The treating doctor will wear gown, head cap, mask, goggles/face shields and gloves.
- Assistant will assist the doctor in the treatment and wear head cap, mask, goggles and gloves.
- Surgical Mouth mask WORN OVER N95 will be changed after every patient.

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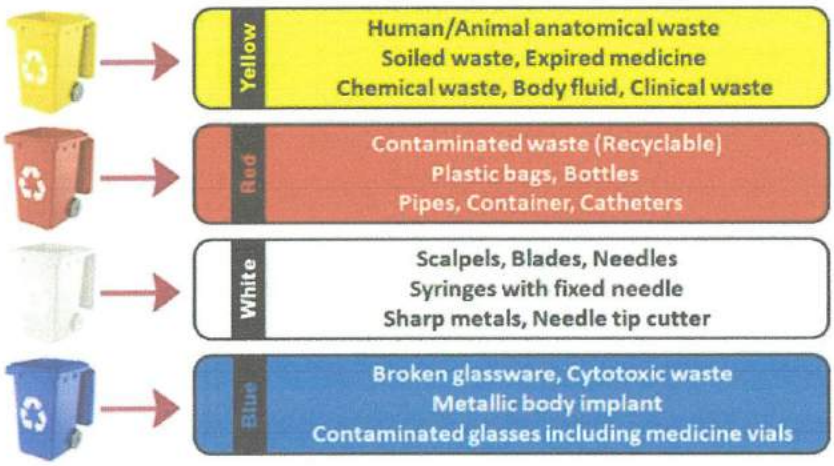
- Disposable plastic items
- Glass
- General waste
- Paper/ cardboards
- Cytotoxic/radiological/radioactive
- Microbiological/pathological wastes



Biomedical waste management rules 2016.

8.3 PROTOCOL FOR SHARP WASTES

- Sharps are exclusively collected in white 'puncture-proof, leak-proof, and tamper-proof' containers to prevent needle – stick injuries to the staff handling biomedical wastes.

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8.4 PROTOCOL FOR DISPOSAL OF AMALGAM WASTE

- Collect and store dry dental amalgam waste in a designated, airtight container labelled as "Scrap Dental Amalgam" and the date on which you first started collecting material in the container.
- Empty dental amalgam capsules containing no visible materials may be disposed of as a nonhazardous waste.
- Discard the amalgam free container in RED colour cover
- Wrap the collected amalgam in dry cotton and discard it into YELLOW cover.

8.5 PROTOCOL FOR DISPOSAL OF X-RAY PROCESSING WASTE

1. X-ray fixer:
   - All the fixer should be collected and stored in a closed plastic container labelled as- Used Fixer- Hazardous waste.
   - Sent to Housekeeping dept. for followed by *silver recovery* and liquid can be drained off. (Ref. Central Pollution Control Board 2016 rule)
2. X ray Developer
   - Do not mix with fixer solution
   - Waste developer can be drained and flush the drains thoroughly until the discharged down the drain.
3. Lead foils
   - Foils should be stored in a box after proper labelling and then sent to BMW collection person.
4. X-ray Cleaner
   - The non- chromium based fixer can be drained off in the sewer.

8.6 PROTOCOL FOR DISPOSAL OF LABORATORY WASTE

- Manage all chemical wastes as hazardous. This includes fixatives, solvents, ethyl alcohol, xylene, reagents and stains, including immunohistochemical (IHC) stains.
- Liquid chemical Waste: Neutralize acid waste with soda ash or sodium bicarbonate. Bases can be neutralized with citric acid. Use pH paper to determine when acid /base spills have been neutralized.
- Discard the liquid waste in Effluent Treatment Plan.

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- Microbiology/Cell culture lab waste: Autoclave the waste (121 degree Celsius, 30 min) and can be discard in yellow bag.
- Biopsy tissue specimens are retained for a period of 5 years, after which any remaining tissue is disposed in YELLOW Bags as per IMAGE- 1.
- Paraffin tissue blocks and Histopathological slide are archived in the respective department as per SOP and in accordance with government norms

8.7 PROTOCOL FOR DISPOSAL OF GENERAL WASTE

- Collect the general waste such as food, papers, non- hazardous, non- BMW can be collect it into BLACK cover and handover to Housekeeping staff.

8.8 RECORD of Biomedical waste disposal, mentioning the color and of bags handed over shall be maintained each Department.

The record has to be verified on daily basis by concerned Clinic/PG dept. HIC staff, monitored by HIC Nurse /QM on weekly basis and monthly by Clinic In charge.

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9. OCCUPATIONAL SAFETY

Occupational safety of dental health care personnel includes :

- prevention, reporting and management of sharps injuries/ needle stick injuries which may potentially expose to the risk of blood-borne viruses (HBV, HCVand HIV)
- protection by immunization

9.1 NEEDLE STICK INJURY MANAGEMENT

Incorrect segregation of sharps is the most important cause of sharps injuries. When sharp injury occurs following procedures is to be followed:

1. Stop the procedure immediately and wash the wound with soap and water, encourage bleeding, apply antiseptic. For Mucosal Exposure, Wash thoroughly

2. Management :
   - Immediately report to Casualty for First aid.
   - Referral to hospital for post-exposure prophylaxis against HBV/HIV, if needed.

3. Reporting
   - All sharps injury and mucosal exposure MUST be reported to the HOD/Clinic Incharge and to the Medical Officer to evaluate the injury.
   - Details of the needle-stick injury should be filled by the HOD/Clinic Incharge and handed over to the HIC nurse for further follow-up.
   - An entry is made in the Needle-Stick Injury Register in the department/Clinics

4. Follow-Up
   - Follow up and statistics of needle-stick injury are done by the HIC nurse on a weekly basis.
   - This information is presented at the HIC meeting and preventive actions to avoid needle-stick injuries, if any, are recorded.

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9.2 PREVENTIVE IMMUNIZATION

- All dental health care personnel should be vaccinated against Hepatitis B and tetanus.
  - All clinical students shall be vaccinated against HBV before commencement of clinical postings.
  - Antibody titre (HBsAg) checking and HBV vaccination are arranged in the medical OP every year.
  - Covid -19 vaccination is recommended for all students and staff.

  - Surveys and questionnaires are done yearly to assess vaccination awareness and monitor the institutional immunization program.

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ANNEXURE 1

LIST OF PROCEDURES FOR ALL SPECIALITIES

Sl.NO	SPECIALTY DEPARTMENT	EMERGENCY AND URGENT DENTAL CONDITIONS
1	Department of Oral Medicine & Radiology	Screening of all Dental patients and recording the findings. **Speciality Cases** The following manifestations may require urgent oral medicine intervention: 1. Non-Healing Solitary ulceration present for over 3weeks 2. Any widespread ulceration of oral mucosa. 3. Neuralgic pain **Oral Radiology Referral** ➢ Extra-oral Radiographs will be considered only for patients with trauma. ➢ Advise only EXTRAORAL RADIOGRAPHS like PA view, SMV, PNS, Lateral Skull for trauma cases OPG and Peri Apical X-ray to b e advised as and when needed. (Before doing OPG wipe the face with Betadine and before IOPA rinse with Povidone iodine).
2	Department of oral and maxillofacial Surgery	1. Extraction of all types, including impactions 2. Fracture management 3. Soft tissue injuries to oral and maxillofacial region 4. Space infection/facial swellings 5. Visible bleeding from the oral cavity 6. Biopsy procedures
3	Department of Prosthodontics	1. All types of removable Prosthesis 2. All repair of fracture prosthesis, including refixing of dislodged crown and Bridge. 3. Pain/ ulceration due to sharp/broken edge of any tooth, fixed or removable prosthesis. (Any aerosol generating procedure to be done in the designated room only)

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4	Department of Conservative Dentistry and Endodontics	1. All Cavity Restorations using GIC or Temp: cement 2 Acute Apical Abscess 3.Pulpotomy,Pulpectomy and - Traumatic Exposure of pulp 4.RCT.(Access cavity can be prepared with Micro-motor with stainless steel burr) 5. All desensitization treatments
5	Department of Orthodontics	1. All Removal and fixed Orthodontoc treatments(New and Old) 2. Follow up cases and repairs (After debonding and before bonding dislodged brackets, tubes etc,the remaining composite or GI material on the tooth can be temporarily removed with slow speed Polishing stones)
6	Department of Pedodontics & Preventive dentistry	1. All Extractions in children. 1. Conservative management of dental trauma in children 2. Management of fractured and Avulsed teeth 3. Restoration of Cavity with GIC or Temp. Cement 4. Pulpotomy 5. Space maintainers
7	Department of Periodontics	2. Acute gingival and periodontal infection 3. Periodontal abscess 4. Severe spontaneous continuous gingival bleeding 5. Therapeutic Scaling and scaling for Ortho or other interdisciplinary cases. (All scaling to be done with hand Scalers and Polishing to be done by rubbing the tooth with cotton pellets dipped in Pumice and hydrogen peroxide) 6. All pocket eradication procedures, including flap procedure 7. Management of gingival enlargements.

ALL AEROSOL GENERATING PROCEDURE TO BE AVOIDED

STRICT INFECTION CONTROLL POLICY TO BE FOLLOWED

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