



**DEPARTMENT OF HEALTH AND FAMILY WELFARE,  
PUNJAB**

**PROTOCOL AND PRECAUTIONS DURING COVID 19 PANDEMIC**  
**MANAGEMENT IN GOVERNMENT DENTAL HEALTH CARE**  
**SETTINGS**

This document has been prepared by Department of Health and Family Welfare, Punjab. Valid points have been taken from MoHFW IPC Guidelines, Dental Council of India Guidelines and Others. Below mentioned guidelines are to be used in all Government Dental Health Care Settings as and till when applicable. THE RECOMMENDATIONS ARE BASED ON CURRENT AVAILABLE EVIDENCE AND IS SUBJECT TO REVISION IN THE WAKE OF EMERGING INFORMATION OR EVIDENCE.

## **Table of Contents**

<b>S. No.</b>	<b>CONTENT</b>	<b>PAGE NO.</b>
<b>1.</b>	<b>INTRODUCTION</b>	<b>3</b>
<b>2.</b>	<b>CLINICAL PROTOCOL</b>	<b>6</b>
<b>3.</b>	<b>DENTAL PROCEDURES DO's AND DONT's</b>	<b>11</b>
<b>4.</b>	<b>INFECTION PREVENTION AND CONTROL</b>	<b>18</b>
<b>5.</b>	<b>DENTAL ENVIRONMENT DISINFECTION</b>	<b>26</b>
<b>6.</b>	<b>BIO MEDICAL WASTE MANAGEMENT</b>	<b>30</b>
<b>7.</b>	<b>ANNEXURE</b>	<b>31</b>
<b>8.</b>	<b>REFERENCES</b>	<b>35</b>

# **INTRODUCTION**

The pandemic of COVID-19 has become a major public health challenge around the world. COVID 19 is caused by SARS CoV2 which belongs to the family of coronaviruses. Corona viruses are large group of viruses having RNA as the genetic material and surrounded by an envelope having protein spikes giving a crown like appearance. The name “coronavirus” is derived from the Latin word “Corona” meaning Crown. COVID 19 virus particles have been recently identified in saliva of infected patients and hence have been a cause of concern for the dental fraternity around the world. Dental procedures that generate a huge amount of aerosols can therefore play a vital role in human to human transmission of this disease.

Dentists and other auxiliary dental health care professionals who perform aerosol generating procedures may unknowingly be providing dental care services to an undiagnosed COVID 19 infected individual, especially when patient is in the incubation period (unaware that he/ she is infected) or has chosen to conceal his infection.

Such a situation makes the dental surgeon, dental assistant as well as subsequent patients at a high risk of infection by inhalation of infected airborne particles and aerosols produced during dental procedures.

Closing dental practices during the pandemic can reduce the number of affected individuals, but will increase the suffering of the individuals in need of urgent dental care. Due to the characteristics of dental settings, the risk of cross infection may be high between dental practitioners and patients and therefore strict and effective infection control protocols must be followed in all government dental health care settings.

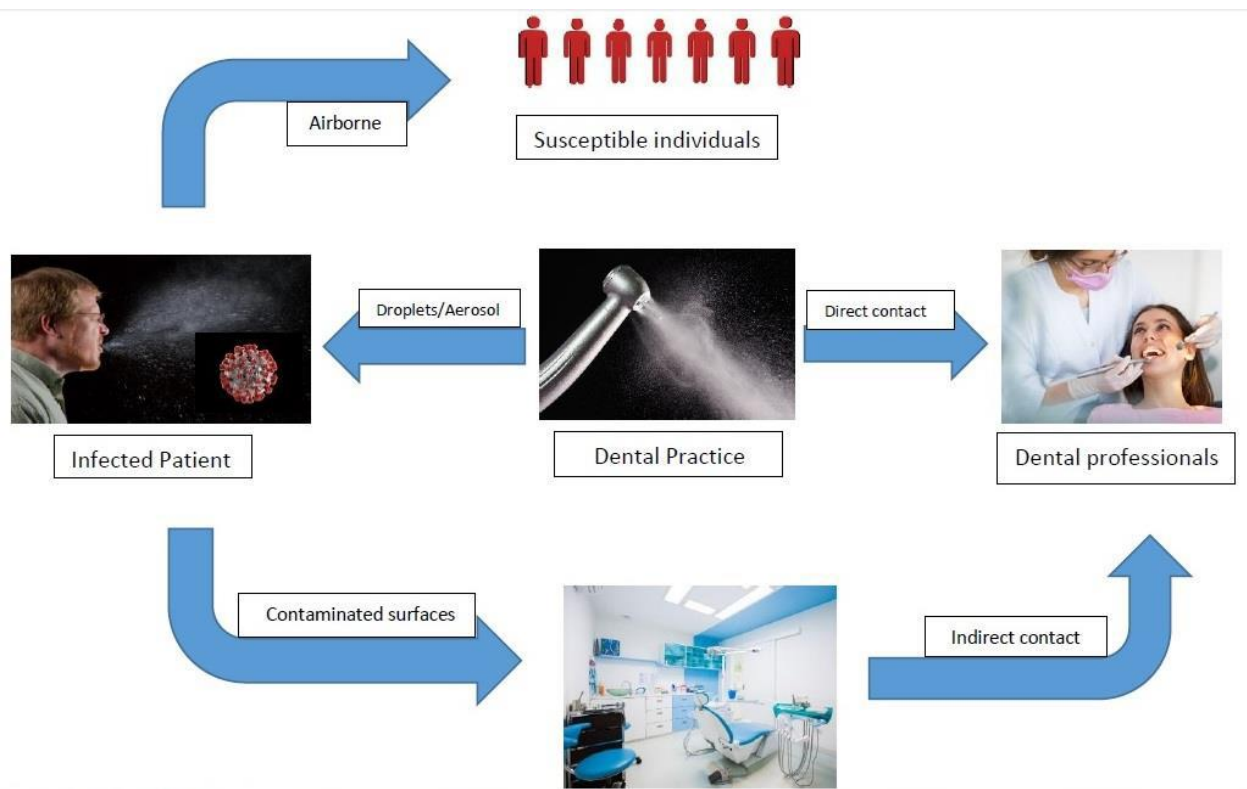
## **Routes of Transmission:**

Interpersonal transmission occurs mainly via respiratory droplets and contact transmission.

1. Transmission through respiratory channel requires relatively close contact, less than 6 feet. This is why social distancing is recommended that we

maintain a distance of 2 meters or 6 feet from each other in public places. Use of appropriate masks/ respirators as required can help break the chain of infection.

2. Inanimate vectors of disease, in particular phones, doorknobs and surfaces are a potential source for transmission therefore, following hand hygiene after touching doorknobs, lift call buttons and counters in public places is of utmost importance.



### Infectious period:

Length of time an individual can transmit the infection to others is not known precisely, but is possibly up to 14 days. The average number of new infections caused by a typical infectious person (human transmissibility range) ( $R_0$ ) is between 2.2 to 3.1. One infected individual on an average infects about 2.2 to 3.1 persons. Current research also shows that treated patients of COVID 19 still show presence

of virus particles in the fecal samples making fecal route of transmission a possible route in the future.

**Characteristic Symptoms:**

• Cough • Fever • Shortness of Breath

**Other symptoms:**

• Headache • Sore throat • Rhinorrhea

**Diagnosis:**

- ☐ Collection of specimens to test for SARS-CoV-2 from the upper respiratory tract (nasopharyngeal and oropharyngeal swab) is the preferred method for diagnosis
- ☐ Reverse Transcriptase – Polymerised Chain Reaction (RT PCR) –is the standard testing method.

# **Clinical protocol:**

## **Recommendations for patients and attendants in waiting areas and upon entering Dental OPD:**

- Patients entering the Dental OPD should be advised to mandatorily wear surgical/cloth masks (can be provided by the hospital, subject to availability).
- Patients and their attendants must practice social distancing norms in the waiting area.
- Hand hygiene to be performed by alcohol based handrub by all patients and attendants (if any). Ask patients to preferably bring their own hand sanitizers.
- ❖ **Only one attendant to be allowed inside the dental OPD in case of very young children or elderly and specially challenged patients.**
- ❖ **Special advisory can be mentioned on the entrance of Dental OPD or in the waiting area for elderly patients as well as medically compromised patients to strictly maintain social distancing, wear face masks and follow hand hygiene.**

### **B. Recommendation for Respiratory hygiene/Cough Etiquette in dental setting:**

Cover nose and mouth during coughing or sneezing with tissue or into your flexed elbow for others sake. Perform hand hygiene after contact with respiratory secretions.

- ❖ **All dental OPDs should display health awareness posters regarding COVID-19, Hand and Respiratory hygiene at prominent locations of the clinical and waiting area.**
- ❖ **Post signs at entrance of Dental OPD with instructions for patients with symptoms of respiratory infection to inform the attending dental surgeon about their symptoms.**

i) Patients should cover their mouths/noses when coughing or sneezing.

ii) Posters mentioning the use and dispose of tissues and masks can be put in the Dental OPD.

iii) Patients must perform hand hygiene after hands have been in contact with respiratory secretions.

iv) Ask patients to remove footwear prior to entry in the OPD. Two separate set of footwear can be kept near the entrance of the OPD for use of the patient. After use by each patient, footwear should be spray disinfected with 0.1% NaOCl.

v) Ask patients to tie their hair and avoid wearing earrings, rings and carrying bags

#### **Evaluation of Patients:**

- Dental surgeons must evaluate patients by taking detailed travel, symptoms and contact history using **questionnaire** enclosed below.
- Take temperature readings as part of the routine assessment of patients before initiating any interactions prior to registration for dental procedures. Record the temperature at every visit. **Non contact infrared thermometers** are highly recommended to be kept in all Dental OPDs.
- In case the patient is a suspected case of COVID 19. Defer all dental treatment and refer the patient to the medical specialist for further evaluation.

• **QUESTIONNAIRE:**

<b>Date:</b>
1.NAME :
2.AGE/ GENDER :
3.ADDRESS :
4. OCCUPATION
5. ARE YOU FROM CONTAINMENT ZONE / COVID HOTSPOTS: YES / NO
IF YES : RED / ORANGE
6. ANY MEDICAL HISTORY :
7. RECENT HISTORY OF TRAVEL : YES / NO (International/ National/Interstate COVID Hotspot places)
8. IF YES MENTION PLACE:
9. RECENT HISTORY OF RESPIRATORY ILLNESS : YES/ NO
10. CURRENT SYMPTOMS OF RESPIRATORY ILLNESS :
FEVER/ COUGH/BREATHING DIFFICULTY

**PATIENTS TO BE AVOIDED FOR DENTAL TREATMENT:**

- All symptomatic individuals who have undertaken international travel during the last 28 days.
- All hospitalized patients during the last 28 days.
- All individuals coming from a hotspot must be tested first.
- All symptomatic health care workers.
- History of direct contact with covid positive cases.
- Patients with active cough, fever, sore throat, malaise, diarrhoea etc.

❖ If the Dental surgeon comes to conclusion that the patient needs treatment, informed consent should mandatorily be signed by either the patient or the attendant/ guardian. (Annexure 2)



- ❖ Disacrd/ disinfect pen used for signing consent.

## **Guidelines for performing Dental Procedures**

### **Aim of dental treatment:**

- Minimize the creation of aerosols by avoiding use of air rotors and ultrasonic scalers.
- Reduce chairside time and hence patient dentist contact time.
- Have a balanced approach towards satisfying patient's dental needs and looking after safety and well being of dental personnel.

Standard precautions (1996), need to be followed rigorously in the dental clinics while doing dental procedures.

Standard Precautions include —

1. Hand hygiene.
2. Use of personal protective equipment (e.g., gloves, masks, eyewear).
3. Respiratory hygiene / cough etiquette.
4. Sharps safety (engineering and work practice controls).
5. Safe injection practices (i.e., aseptic technique for parenteral medications).
6. Sterile instruments and devices.
7. Clean and disinfected environmental surfaces.



## DENTAL PROCEDURES- DO's AND DON'T's

TREATMENT PROCEDURES	SCOPE	ADVISORY
Management of Carious lesions not involving pulp	<ol style="list-style-type: none"> <li>1. Selective caries removal</li> <li>2. SDF application</li> <li>3. SMART</li> </ol>	<p>Using sharp excavators, slow speed drill and GIC/RMGIC restoration</p> <p>To arrest carious lesions in geriatric and pediatric patients</p> <p>SDF application to arrest lesion followed by GIC restoration</p>
Minimally invasive pulp therapy	<ol style="list-style-type: none"> <li>1. Partial pulpotomies</li> <li>2. Full pulpotomies</li> <li>3. Root canal treatment</li> </ol>	<p>Traumatic exposures, iatrogenic exposures.</p> <p>Irreversible pulpitis, Traumatic and iatrogenic exposures.</p> <p>Necrotic pulp; Periapical lesion. CaOH<sub>2</sub> dressing; Delay obturation.</p>
Post endodontic restorations	<ol style="list-style-type: none"> <li>1. Monoblocking</li> <li>2. SS Crown</li> <li>3. Preformed esthetic crown</li> </ol>	<p>Bonded composite restoration with cuspal coverage</p> <p>For badly destroyed molars</p> <p>Long term esthetic provisional restorations</p>
Bonded restorations for replacement of missing anterior teeth	<ol style="list-style-type: none"> <li>1. Maryland bridge</li> <li>2. Fibre reinforced composite bridge</li> <li>3. Lithium disilicate bonded bridge</li> </ol>	<p>Metal wings, ceramic pontic</p> <p>Lab fabricated or chairside fabrication using restorative composite resin</p> <p>Lab fabricated for highly esthetic restorations</p>
Prosthodontics	<ol style="list-style-type: none"> <li>1. Impressions</li> <li>2. Removable dentures</li> <li>3. Management of existing FPDs</li> </ol>	<p>Chemical disinfection of impressions and wax rims</p> <p>Partial and Complete dentures, Essix appliances/Flippers.</p> <p>Cementation or bonding of restorations following usual protocol</p>
Esthetic dentistry	<ol style="list-style-type: none"> <li>1. Direct composite veneers</li> <li>2. Diastema closure</li> <li>3. Class 4 build ups</li> <li>4. Multiple teeth composite resin build ups(FMR)</li> </ol>	<p>Free hand or using indices made from wax ups</p> <p>Free hand with palatal index</p> <p>Free hand with palatal index</p> <p>Transparent silicone index and injection moulding technique</p>

Periodontics	1. Scaling 2. Periodontal surgery	Only hand instrumentation Following conventional protocols
Radiology	1. Panoramic xrays 2. IOPA 3. CBCT	Preferable 3 layers of disposable barriers Selected cases
Oral Surgery	1. Exodontia 2. Abscess drainage 3. Disimpactions	Sectioning with micromotor drills; fine tipped elevators Following conventional protocols Bone drilling to be avoided. Chisel/Mallet technique. Refer to specialist
Implant Dentistry	1. Implant placement surgery 2. Immediate placements 3. Crestal sinus lifts 4. Ridge expansion 5. Ridge augmentation	Slow speed drilling protocol without saline for soft bone. Dense bone cases to be avoided Atraumatic technique followed by slow speed osteotomy drills. Using concave osteotomes Bone expansion screws, convex osteotomes Following conventional protocols. No harvesting autogenous bone.
Orthodontics	1. Changing wires and ligatures 2. Bonding orthodontic attachments 3. Interproximal Reduction 4. Debonding 5. Placement of micro implants	Extreme caution to prevent laceration Wash etchant with water in syringe and gently use chip blower to dry Use IPR strips Delay debonding Avoid irrigation, use moist gauze to maintain field of vision

**Primary care dental triage should focus on the provision of three As**

- Advise.
- Analgesic prescription.
- Antibiotic prescription.

Patients should be asked to report back in case of non resolution of symptoms within 48- 72 hours.

A DENTAL TRIAGE MUST BE ESTABLISHED BEFORE TAKING UP THE PATIENT FOR A DENTAL PROCEDURE.

## CLASSIFICATION OF DENTAL SITUATIONS

### EMERGENCY (Situations which increase the patient's death risk):

These situations warrant dental treatment at the earliest.

- Uncontrolled bleeding.
- Cellulitis or diffuse bacterial infections leading to intra-oral or extra-oral Edema, and potential risk of damage to airways
- Facial bone trauma which may damage the patient's airways.

### URGENT (situations which require priority care but do not increase the patient's death risk):

In These situations, dental care should be given with utmost precaution by the dental surgeon as and when deemed clinically feasible.

- Acute dental pain (Pulpitis).
- Pericoronitis.
- Alveolitis.
- Dental or periodontal abscesses.
- Dental care needed for another critical medical procedure.
- Cementation of fixed prosthodontic dentures or crowns.
- Biopsies.
- Adjustments of prosthesis that cause pain and compromise chewing function.
- Changing intracanal medication.
- Removal of extensive dental caries or restorations that cause pain.
- Mucositis.
- Dental trauma with avulsion or luxation

### Elective procedures (complaints and situations which do not involve any immediate morbidity for the patient)

Such dental procedures can be deferred till the community phase of transmission of COVID 19 is not over.

### **Points to remember**

1. Perform procedures in an adequately ventilated room.
2. Remove all objects/ surfaces that may be touched frequently and which cannot be easily disinfected.
3. All staff must maintain proper social distancing norms.
4. Exhaust fans in OPDs to be kept on. Minimize the use of AC's in the dental OPD. Centralized AC's strictly to remain shut.
5. Adjacent dental chair should be positioned six feet apart.
6. Cover dental chair with a plastic disposable barrier which is to be disinfected by 1% NaOCl after every patient. Contact time with 1% NaOCl is 30 minutes (minimum) so the next procedure should be done after a minimum gap of 30 minutes.
7. Cover keyboard of computer with disposable, flexible, clear barrier (e.g. plastic wrap).
8. Any extra fomite bearing articles like watches, bags, books should not be allowed in the OPD
9. All staff to refrain from wearing wrist watch, bracelets and jewellery.
10. Use of mobile phones in the patient treatment room is not recommended.
11. Preferably all dental procedures should be done on appointment basis to minimize patients waiting in the corridors as well as allowing proper disinfection protocol to be maintained in the OPD. Give non overlapping appointments.

12. Surgical procedures and extractions to be done at arm's length.
13. Use of magnification is advantageous (wherever possible).
- 14.4 Handed Dentistry to be strictly adhered to in centers wherever possible.
15. All cavity cutting procedures to be performed preferably with micromotors and contra angle hand piece without water spray or coolant spray to avoid aerosol generation.
16. Aerosol restricting canopies can be used (in centers where it is possible).



Aersol Restricting Canopy for dental units

17. Autoclave hand piece for every patient (highly recommended).
18. Use of rubber dam is highly recommended when doing aerosol generating dental procedures.
19. Use of high volume suction mandatory for all aerosol producing dental procedures.
- 20. The use of pre-procedural mouthwash shall be strictly adhered to. Ask patient to rinse with hydrogen peroxide 1% followed by 0.2% povidone iodine or chlorhexidine mouthwash for 1 minute.**
21. Patients can be scrubbed with Iso Propyl alcohol extra orally prior to any dental

procedure.

22. Try and use the 11 or 12 o' clock dentist patient positions while treating patients so as not to come in direct path of the aerosols generated.
23. Avoid using three way syringes. Cavities can be dried using cotton rolls.
24. Prefer hand scaling over ultra sonic scaling
25. Wherever possible chemomechanical method/ sharp spoon excavator may be used for caries removal and to be preferred over use of dental air rotor.
26. Recommend use of resorbable sutures to minimize follow ups.
27. Impression making to be deferred as much as possible. Transfer of impressions, prosthesis to be done in sealed plastic bags after proper disinfection.
28. Radiographs if have to be taken, extra oral radiography like OPG to be preferred over intra oral radiographs to avoid gag or cough reflex. In case, IOPAs are required, sensor barriers should be doubled to prevent any cross contamination. A pre radiograph mouth rinse can be considered to reduce the microbial load.
29. Ibuprofen should be avoided for pharmacological management of pain in suspected/ confirmed patients of COVID 19.
30. After the patient leaves the treatment room, collect all hand instruments immediately, rinse them in running water to remove organic matter and dip into appropriate disinfectant (1% NaOCl). Do not handle the instruments with ungloved hands. Follow hand hygiene after disposing off the instruments.
31. Dental surgeons with any underlying medical condition such as Diabetes mellitus, chronic liver disease, heart and kidney disease, chronic lung



conditions like asthma and COPD, Cancer, Seropositive cases and Pregnant women should completely avoid aerosol generating procedures and follow stringently all standard precautions.

## **Infection Prevention & Control**

**The three basics of infection control are:**

- Following of stringent hand hygiene and disinfection of all potentially infected surfaces.
- Use of appropriate PPE while doing dental procedures.
- Use of appropriate mask/ respirator.

### **A. Hand Hygiene:**

Follow stringent hand hygiene practices. Keep hands away from face, eyes, nose and eyes and limit the surfaces touched.

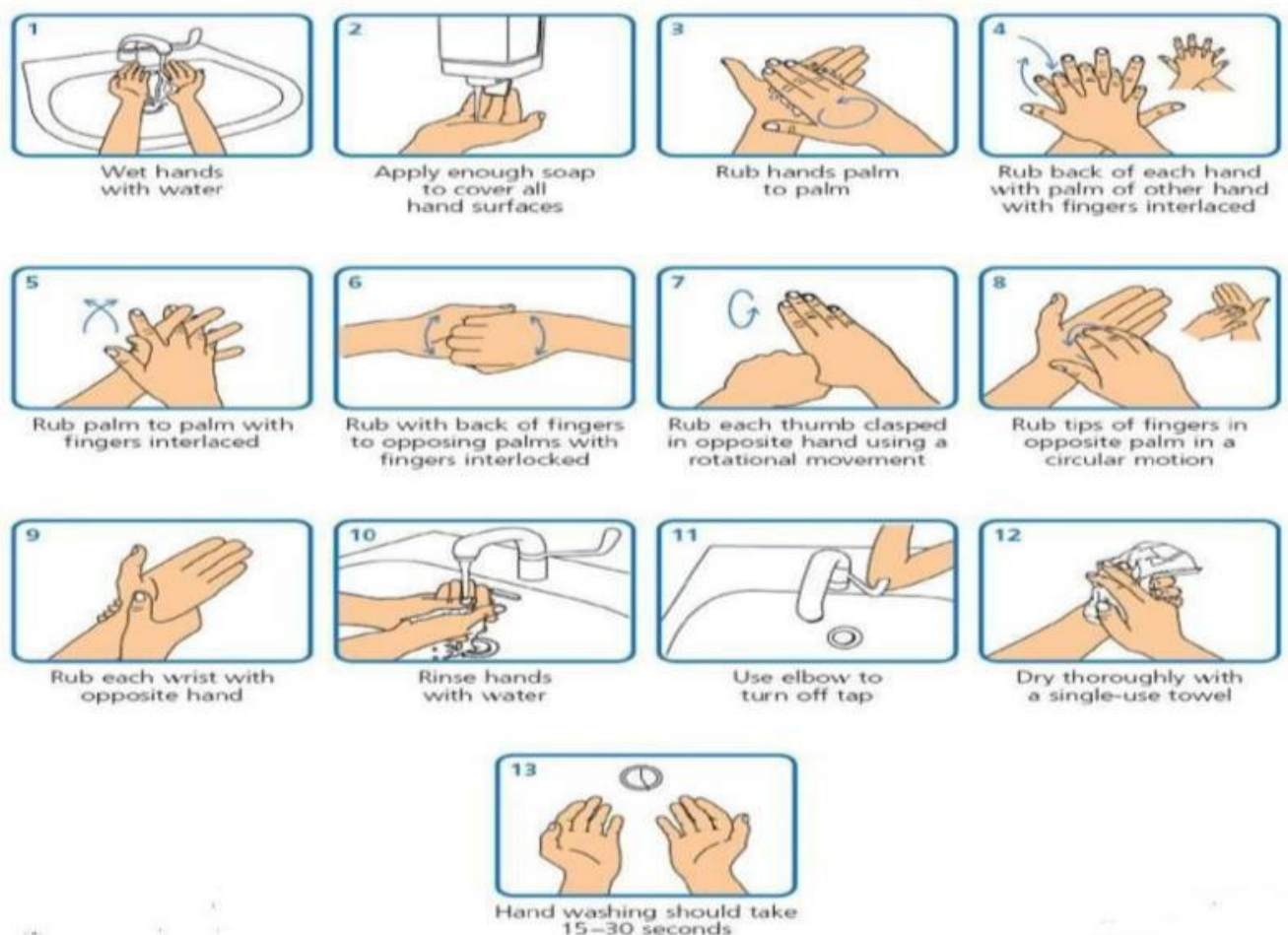
### **When to follow Hand Hygiene:**

1. Before touching a patient.
2. Before starting any aseptic procedures.
3. After touching a patient/ doing the procedure.

4. After body fluid exposure risk.
5. After touching the patient's surroundings.

**Hand washing Steps:** Wash your hands for minimum of 20 seconds with soap and water. Use of liquid soap from a soap dispenser is preferred to a bar of soap.

- ❖ If hand washing is not possible, hand hygiene can be implemented by use of 70% alcohol based hand disinfectant/ sanitizer/ hand rub. Rub the hands till they become dry.



### HAND WASHING TECHNIQUE: STEP BY STEP

## **B. Personal Protective Equipment (PPE):**

### **Use, Donning and Doffing Guidelines**

- Dental Surgeons should change from personal clothing to scrubs before entering the OPDs and vice versa before returning home.
- It is highly recommended to have a designated area for donning and doffing of the PPE kit (other than the Dental Operatory).
- PPE includes shoe cover, gown, mask, eye protection (fitted goggles with soft tissue seal) & gloves.
- For examination of the patient, N95 mask, fitted eye wear, visor shield and head-cap is to be used.
- Masks appropriate for aerosol generating dental procedures are N 95 masks that are certified by NIOSH / FFP 2 masks (European Standards).
- N 95 respirators without valve should be preferred over those with expirator valves.
- If a respirator is not available, use a combination of a surgical mask and full-face shield.
- N 95 masks and respirators are not made for people with facial hair. Hence, people with facial hair must use a surgical mask and a face shield.
- Do not touch the external surface of the mask/ respirator.

- A head cap (disposable) or surgical tie cap should be worn while performing dental procedures.
- A face shield should preferably be worn over and above the protective eye wear and face mask.
- For simple procedures FFP 2 mask and full body cover and shoe cover is to be used.
- Wearing of least 3 ply masks, suitable head caps and shoe covers at all times when in clinical area. Protective eye wear and face shield are also recommended.
- However for all types of invasive treatment with likelihood of aerosol generation, complete PPE with N95 mask must be used.
- If gowns are not fluid resistant, use a waterproof apron for procedures with expected high fluid volumes that might penetrate the gown.

If there are shortages of gowns, they should be prioritized for:

- Aerosol-generating procedures.
- Clinical procedures where splashes and sprays are anticipated.
- Shoe cover should always be worn before entering the patient care area.
- In case shoe covers are not available, a separate set of covered footwear should be kept by the dental surgeon, for use only in the Dental OPD. The footwear can be disinfected with 1% NaOCl at the end of the day.

- After completion of the procedure, disposable components of the PPE should be discarded.
- If the eye wear is reusable, sterilize it by autoclaving or according to manufacturer's instructions.
- Face shields are mostly not autoclavable hence they should be disinfected using chemical disinfectants.

### **Donning and Doffing of Personal Protective Equipments (PPE)**

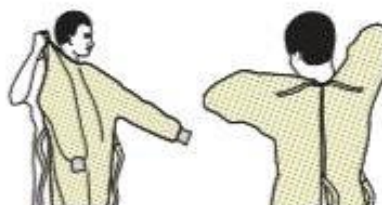
- ❖ **Perform hand hygiene with a 70% alcohol based hand disinfectant/ sanitizer/ hand rub in between steps if hands become contaminated and immediately after removing all PPE**

## SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

### 1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



### 2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



### 3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



### 4. GLOVES

- Extend to cover wrist of isolation gown



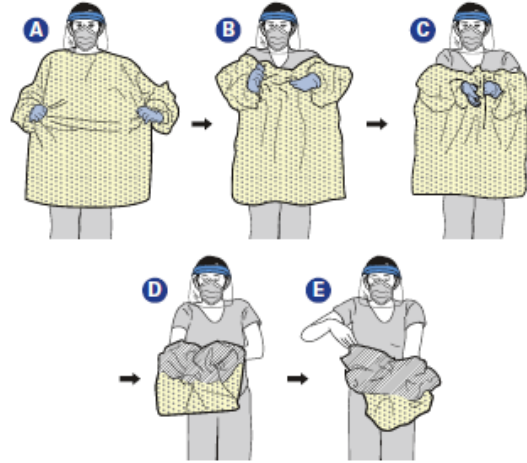
**USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION**

## 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

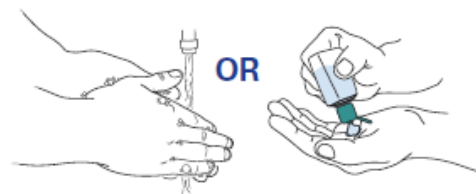


### 3. MASK OR RESPIRATOR

- 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**



**Disinfection protocol:**



## Dental OPD / Dental Care Environment Disinfection:

### □□ Preparing 1% Sodium Hypochlorite solution

Volume Formula - ( $C_1V_1=C_2V_2$ )

Consider 500ml of the regularly available 6 %Sodium Hypochlorite Solution (NaOCl)

$C_1= 6\%$ ;  $V_1=500\text{ML}$ ;  $C_2=1\%$ ;  $V_2=?$

$V_2= 6*500/1 = 3000\text{ML}$  (3l)

Hence add 500ml of 6% sodium hypochlorite to 3l of water to make it 1% Sodium Hypochlorite.

## Mopping protocol

Mopping should be done by 3 Bucket system: Dirty mop should be first put in Bucket No.1 (water) and then rinsed in Bucket No.2 (detergent solution) and then immersed in Bucket No. 3 containing prepared solution of Sodium hypochlorite (1% ). Mop liberally and keep wet for 5 to 10 minutes for optimum results.



## Surface Disinfection:

1. After examination/management of each patient, the dental unit is to be disinfected meticulously with 1% NaOCl (freshly prepared daily) before the next patient is called in. Use of alternate dental chairs (wherever available) for examination/treatment can be a practical alternative.



2. . For infection control patients disposable single use covers can be used for inspection light handle, head rest and hand rests.
3. Disinfect Dental operatories along with all the components of dental chair and paraphernalia within 3 feet of distance using 1% Sodium Hypochlorite and Clean with sterilized cotton running it from inside to outwards and leave it for drying.
4. Dental OPDs to be spray disinfected with 1% NaOCl 2- 3 times in a day (Must include tables, chairs, the door handles and knobs)
5. Dental unit disinfection: All 3 in 1 syringes, water outlets, hand piece water pipelines should be flushed with the disinfectant solution or according to manufacturer's instructions.
6. 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.
7. Back-flush the Suction pipe with 1% Sodium Hypochlorite with the help of disposable cups for at least 30 seconds.
8. Environmental surfaces or objects contaminated with blood, other body fluids, secretions or excretions should be cleaned and disinfected using standard hospital detergents/disinfectants e.g. freshly prepared 1% Sodium Hypochlorite or 5% Lysol. Spray the surface with 0.5% to 1% solution of Sodium Hypochlorite. The contact period of the chemical with the surface should be minimum of 30 Minutes. Areas to be cleaned include dental chair, inspection lights and handles, hand control, trolleys in addition to cupboard doors, tables and other exposed surfaces distant from the dental chair.
9. Use water diluted bleaching powder for cleaning spittoons in between every patient.

Note: Freshly prepared hypochlorite solutions are generally recommended.

### **Fumigation:**

Fumigate the dental OPD every day using hydrogen peroxide 11% and 0.1% silver nitrate (eg. Baccishield ) or benzalkonium chloride based non aldehyde disinfectant (eg. Mikrobac Forte) as per manufactures instruction.

Fumigation is done on daily basis in clinical or high contact areas and biweekly in non-clinical or low contact areas.

### **Disinfection of instruments:**

Step 1: Dental instruments should be disinfected by using 1% Hypochlorite for one hour

Step 2: Then wash it with soap and water

Step 3: Double autoclave (use of sterilization indicators like autoclave tape is highly recommended).

### **Liquid spill management:**

i) Promptly clean and decontaminate spills of blood and other potentially infectious materials.

ii) Cover spills of infected or potentially infected material on the floor with paper towel / blotting paper / newspaper.

iii) Pour 0.5% freshly prepared sodium hypochlorite. Leave for 30 minutes in contact

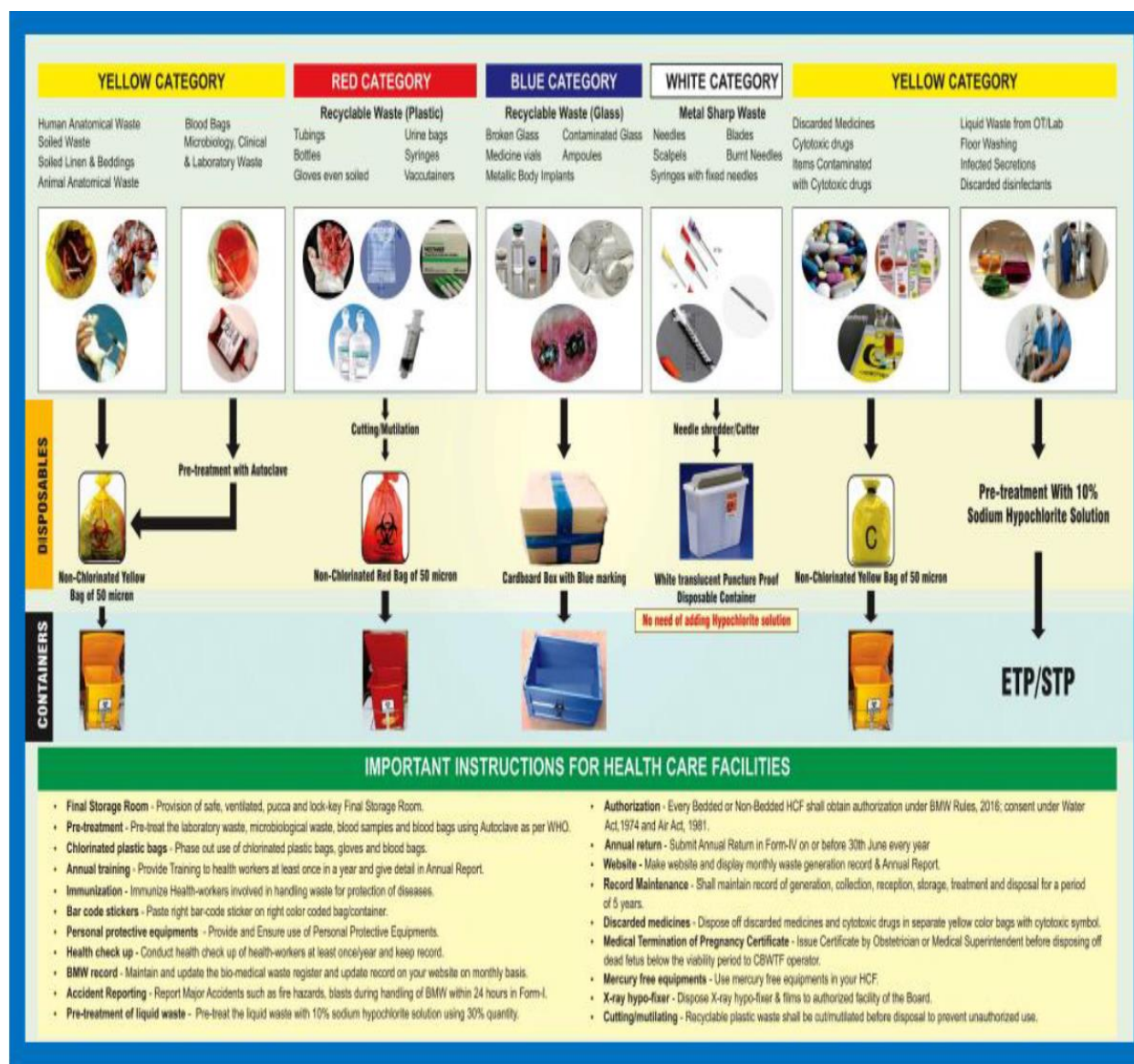
iv) Place all soiled absorbent material and contaminated swabs into a designated waste container.

v) Then clean the area with gauze or mop with water and detergent with gloved hands.



# Biomedical waste management:

Must be segregated at source and discarded as per PPCB rules.



## Annexures:

## **Annexure -I**

### **Case definitions:**

#### **Suspect case:**

A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), AND a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset.

OR

A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to symptom onset;

OR

A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation.

#### **Probable case**

A suspect case for whom testing for the COVID-19 virus is inconclusive. a. Inconclusive being the result of the test reported by the laboratory.

OR

A suspect case for whom testing could not be performed for any reason.

#### **Confirmed case**

A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

\*As per recent WHO and MoHFW guidelines

**Contact High risk contact:** – A contact is a person who experienced any one of the following **exposures during the 2 days before and the 14 days after the onset of symptoms** of a probable or confirmed case:

☐ **Touched body fluids of the confirmed case** (respiratory tract secretions, blood, vomit, saliva, urine, feces)

☐ **Staying in the same close environment of a COVID-19 patient** (including workplace, classroom, household, gatherings) for 15 minutes or more and at a distance of **less than 2 meters** without any precautions.

☐ **Travelling together in close proximity (1 m)** with a COVID-19 patient in any kind of conveyance.

☐ A contact in an aircraft sitting within two seats (in any direction) of the COVID-19 case, travel companions or persons providing care, and crew members serving in the section of the aircraft where the index case was seated (if severity of symptoms or movement of the case indicate more extensive exposure, passengers seated in the entire section or all passengers on the aircraft may be considered close contacts).

#### **Low risk contact**

☐ Healthcare workers (not including laboratory workers, who have taken recommended infection control precautions) including the use of appropriate PPE, during the following exposures to the confirmed case.

☐ Direct contact with the case (as defined above) or their body fluids.

☐ Present in the same room when an aerosol generating procedure is undertaken on the case.

☐ Any individual who has shared a closed space with a confirmed case for longer than two hours, but following risk assessment, does not meet the definition of a high risk contact.

#### **Containment zone:**

The containment zone will be decided by COVID task force based on the extent of cases/contacts listed and mapped by them. From the residence of the case, the PHC in which residing with adjoining PHCs to be earmarked. This area is known as Containment Zone. If required, based on the mapping of contacts and cases, the containment zone will be refined.

#### **Buffer Zone:**

Another 2 Km from the periphery of the containment zone is known as Buffer Zone

## **ANNEXURE – II**

### **DECLARATION OF CONSENT**

I ..... have come to the .....Dental OPD for my dental treatment. If I happen to be an asymptomatic carrier or an undiagnosed patient with COVID-19 disease, I suspect it may endanger the doctors and their supporting staff. It is my duty and responsibility to take appropriate precautions and follow the protocols prescribed by them. I understand the COVID-19 virus has a long incubation period during which carriers of the virus may not show symptoms and still be highly contagious. It is impossible to determine who has it and who does not given the current limits in virus testing. I understand that due to the frequency of visits of other dental patients, the characteristics of

the virus, and the characteristics of dental procedures, that I have an elevated risk of contracting the virus simply by being in a dental office.

I confirm that I am not presenting any of the following symptoms of COVID-19 listed below:

- Fever
- Shortness of Breath
- Dry Cough
- Runny Nose
- Sore Throat
- Loss of Smell or Taste

I also know and understand that I may already be an asymptomatic carrier/undiagnosed COVID-19 positive patient/and may get infected in due course of time after my visit to dental OPD and I will not hold the doctors or the staff responsible in any way if in future I get diagnosed of COVID-19 for me, my family or my accompanying person.

The doctor reserves the right to Treat/Defer/Refer me accordingly.

The above terms and conditions have been read by me/have been explained to me in my native language to my complete satisfaction. I agree to all terms and conditions mentioned above. I verify, confirm and agree to be held accountable, regarding the details given by me which are true to the best of my knowledge.

Signature of Patient/Parent/Guardian

## **REFERENCES**

1. Detailed Guidelines for Infection Prevention Control for suspected cases of 2019-nCoV Acute Respiratory Disease-MINISTRY OF HEALTH AND FAMILY WELFARE
2. COVID-19 Guidelines for dental colleges, dental students and dental professionals by Dental Council of India.(16th April, 2020)No.DE-22-BDS(Academic)-2020/
3. IDA\_Recommendations\_for\_Dental\_Professionals\_on\_the\_Coronavirus\_Threat.



4. Guidelines for disinfection of quarantine facility (for COVID-19)-National Control for Disease Control.
5. Summary of infection prevention practice in dental settings Basic expectation for safe care centre for disease control 2016.
6. Guidelines for dental care provision during the COVID-19 pandemic
7. Ali Alharbi a, Saad Alharbi Shahad Alqaidi <https://doi.org/10.1016/j.sdentj.2020.04.001> 2019 Novel Corona Virus disease (COVID-19) pandemic:-review of current evidence. Indian J Med Res.(29 Feb 2020)
8. Ather A, Patel B, B Ruparel N, Diogenes A and Hargreaves KM, JOE 2020, Coronavirus disease 19 (COVID 19): Implications for Clinical Dental Care.
9. SOPs for limited services at OHSC during COVID-19 crisis, PGIMER, Sector 14, Chandigarh.
10. CDC standard precautions for airborne diseases 1996.