

Guidelines for Dental Professionals in Covid-19 pandemic situation

Issued on 19/05/2020

Prelude/ Background

In the current COVID 19 pandemic, Dentists, auxiliaries as well as patients undergoing dental procedures are at high risk of cross-infection. Most dental procedures require close contact with the patient's oral cavity, saliva, blood, and respiratory tract secretions. Saliva is rich in COVID 19 viral load. Many patients who are asymptomatic may be carriers. For this reason, it is suggested that all patients visiting a dental office must be treated with due precautions.

Several guidelines have been issued earlier by DCI, IDA and other organizations and hence there is a need to issue unified guidelines .

These guidelines address dental services in the country, and cover :

- Health care workers who are required to attend dental ailments in remote locations in the government sector.
- Dental Surgeons working in PHC/ small towns and different locations.
- Dental Surgeons working in government and private hospitals set up.
- Dental surgeons working in cities with solo or multi-speciality practices.

Zones and Dental Clinics

1. The dental clinics will remain closed in the **CONTAINMENT ZONE**; however, they can continue to provide tele triage. Patients in this zone can seek ambulance services to travel to the nearby COVID Dental Facility.
2. In the **RED ZONE**, Emergency dental procedures can be performed.
3. The dental clinics in **ORANGE AND GREEN ZONE** will function to provide dental consults. Dental operations should be restricted to **Emergency** and **Urgent** treatment procedures only.
4. All routine and elective dental procedures should be deferred for a later review until new policy/guidelines are issued.
5. Due to the high risk associated with the examination of the oral cavity, oral cancer screening under National Cancer Screening program should be deferred until new policy/guidelines are issued.

List of Emergency and Urgent Dental Procedures

The clinical conditions of dental origin, which require priority care but do not increase the patient's death risk are categorised as **URGENT** and which increase the patient's death risk are categorised as **EMERGENCY** (Table 1).

Table 1: Dental Procedures for asymptomatic for COVID

	Clinical condition/ Procedures	Risk Level	
Emergency Dental Procedures	Fast spreading infections of facial spaces/Ludwig Angina/Acute cellulitis of dental origin/Acute Trismus. Should connect with hospital settings emergency settings immediately.	Very high	
	Uncontrolled bleeding of dental origin. Should connect with hospital settings emergency settings to rule out other causes.	Very high	
	Severe uncontrolled dental pain, not responding to routine measures.	High	
	Trauma involving the face or facial bones.	Very High	
	Radiographs like PNS, OPG, CBCT in facial trauma and in medico-legal situations	High	
	Children and adolescents		
Urgent / Procedures	Acute Pulpitis	High	
	Dental abscess	Very High	
	Dentoalveolar trauma	High	
	Pain of cavitation needing temporisation	High	
	Unavoidable Dental Extractions	Very High	
	Orthodontic procedures (see the section on adults)	Moderate	
		Adults and Geriatric	
	Dental pain of pulpal origin not controlled by Advice, Analgesics, Antibiotics (AAA)	High	
	Acute dental abscess of pulpal / periodontal/ endo-perio origin/ Vertical split of teeth	High	
	Completion of ongoing root canal treatment (RCT)	High	
	Temporization of cavitation in teeth which are approximating pulp but do not need pulp therapy	High	
	Broken restoration/ fixed prosthesis causing sensitivity of vital teeth/ endangering to pulpitis /significant difficulty in mastication	High	
	Unavoidable Dental Extractions / Post extraction complications	Very High	
	Already prepared teeth/ implant abutments to receive crowns	High	
	Peri-implant infections endangering stability	High	
	Pericoronitis / Operculectomy	High/Moderate	
	Oral mucosal lesions requiring biopsy	High	
	Long-standing cysts and tumours of the jaw with abrupt changes	High	
Sharp teeth /Trigeminal neuralgia	Moderate		
Orthodontic wire or appliances, piercing or impinging on the oral mucosa.	Moderate		
Orthodontic treatment causing iatrogenic effects	Moderate		
Delivery of clear aligners	Moderate		
Patients on skeletal anchorage	Moderate		

	Repair of Broken complete dentures	High
	Implant prosthesis related issues	High
	Oral mucosal infections such as candidiasis	High
	Oral mucosal lesions showing sudden changes or suspicion of causing severe problems,/ oral cancer requiring biopsy	High
	Patients with medical conditions	
	Diabetes patients requiring treatment for periodontal conditions	High
	Dental treatment for patients requiring cardiac surgery	Very high
	Hospitalised patients requiring dental care for acute problems	Very high
	Patients requiring dental treatment for radiotherapy /oragn transplantation	Very high

Urgent procedures should be undertaken only after teleconsultation, tele-triage, consent, and through pre-fixed appointment only

Also, see suggested modifications required for a clinic set up

Modifications required for a dental Clinic setup

The dental operatories should gear themselves for readiness- Preparatory Phase(I), Implementation Phase(II) and Follow up (III)

Phase I:Preparatory phase for a dental clinic

Doctor and health care prophylaxis against COVID 19.

Testing for the Covid-19 before resuming work in the clinics:

Health care workers who are asymptomatic and do not fall under the category of being exposed to corona virus infection are not required to undergo a test before resuming to work in the

clinics.https://www.icmr.gov.in/pdf/covid/strategy/Strategey_for_COVID19_Test_v4_09042020.pdf

Hydroxychloroquine Prophylaxis

As per the advisory given by the MOHFW dated 22.03.2020, all asymptomatic healthcare workers involved in the care of suspected or confirmed cases of COVID-19 are advised to take HCQ prophylaxis after medical consultation. For further details:-

<https://www.mohfw.gov.in/pdf/AdvisoryontheuseofHydroxychloroquinasprophylaxisforSARSCoV2infection.pdf>,https://www.icmr.gov.in/pdf/covid/techdoc/HCO_Recommendation_22M_arch_final_MM_V2.pdf,You may also like to watch video on the same subject on [Covid.aiims.edu](https://www.youtube.com/watch?v=Uj8v8v8v8v8)

Dental Clinic

Ventilation and air quality management in stand-alone dental clinics

- I. Maintain air circulation with natural air through a frequent opening of windows and using an independent exhaust blower to extract the room air into the atmosphere.
- II. Avoid the use of a ceiling fan while performing procedure.
- III. Place a table fan behind the operator and let the airflow towards the patient.A strong exhaust fan to be so located to create a unidirectional flow of air away from the patient.
- IV. The window air condition system/ split AC should be frequentlyserviced, and filters cleaned.
- V. Use of indoor portable air cleaning system equipped with HEPA filter and UV light may be used.

In central AC buildings, on-recirculatory system: Blocking off the return air vents in the patient area will temporarily stop air circulation provided AHU will have provision to receive adequate outdoor air supply. Allow fresh air into rooms by opening of windows or doors slightly.

(https://mes.gov.in/sites/default/files/COVID%2019%20GUIDELINES%20FOR%20OPERATION%20OF%20AIR%20CONDITIONING%20VENTILATION%20SYSTEM%20DT%2028%20APR%202020_1.pdf)

Clinic entrance, reception and waiting

Display visual alerts at the entrance of the facility and in strategic areas (e.g., waiting areas or elevators) about respiratory hygiene, cough etiquette, social distancing and disposal of contaminated items in trash cans.

Install glass or plastic barrier at the reception desk, preferably with a two-way speaker system.

Ensure availability of sufficient three-layer masks and sanitisers and paper tissue at the registration desk, as well as nearby hand hygiene stations.

Distant waiting chairs, preferably a meter apart.

All areas to be free of all fomite such as magazines, toys, TV remotes or similar articles.

Cashless/contactless payment methods are preferred.

A bin with lid should be available at triage where patients can discard used paper tissues.

Changing Room

Changing room to be available for staff and all workers to wear surgical top and pyjama and clinic shoes

Dedicated area for donning and doffing of PPE.

Dedicated area for sterilisation

A dedicated and trained person should be available to undertake Transport, Cleaning, Drying, Packing, Sterilisation, Storage and Testing the quality of sterilisation as per the standard guidelines and manufacturer's instructions.

Sufficient and dedicated space for storage of additional items of PPE and sterilisation and disinfection instruments and chemicals must be ensured.

Washrooms

[Sensor taps or taps with elbow handles](#)

[Do not use towels, Paper towels are preferred](#)

Equipment and instrumentation

- I. Fumigation systems
- II. High volume extra oral suction
- III. The indoor air cleaning system
- IV. The dental chair water lines should be equipped with ant retraction valves n valves
- V. Used hand pieces with anti-retraction valves only
- VI. Chemicals required for disinfection
- VII. Appropriate PPE and ensure it is accessible to HCW.

VIII. Maintain a supply of all consumables related to PPE, Sterilisation and Disinfection

Training of Healthcare Workers (HCWs)

- I. Train administrative personnel working in the reception of patients on hand hygiene, social distancing, use of facemask, for them and incoming patients.
- II. Educate all HCW on proper selection and use of PPE. They may require psychological support and morale-boosting to maintain their level of confidence and strict adherence of guidelines.
- III. Staff should rotate more frequently, preferably, should avoid long working hours, should ensure proper nutrition and sleep.
- IV. All staff and dentist must use surgical attire in the dental office, and all personal clothing should be avoided.

(<https://www.cdc.gov/oralhealth/infectioncontrol/summary-infection-prevention-practices/standard-precautions.html>)

Hand hygiene:

As per the WHO guidelines :

https://www.who.int/gpsc/5may/Hand_Hygiene_Why_How_and_When_Brochure.pdf

Donning and Doffing of PPE:

- a. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html>
- b. <https://covid.aiims.edu/personal-protective-equipment-covid-19-preparedness/>

Use of N -95 masks/Guidelines for extended use link:

- a. <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>
- b. <https://covid.aiims.edu/using-personal-protection-n95-masks-given-to-health-care-workers-at-aiims/>

Standard Precautions:<https://www.cdc.gov/oralhealth/infectioncontrol/summary-infection-prevention-practices/standard-precautions.html>

Disinfection of Dental Clinic

COVID-19 virus can potentially survive in the environment for several hours/days. Premises and areas potentially contaminated with the virus to be cleaned before their re-use. Remove the majority of bioburden, and disinfect equipment and environmental surfaces.

Environment and Surface Disinfection:

Floors: 2 Step Cleaning Procedure (Detergent and freshly prepared 1% sodium hypochlorite with a contact time of 10 minutes. Mop the floor starting at the far corner of the room and work towards the door. Frequency: after any patient/ major splash or two hourly.

Rest of the surfaces: Freshly prepared 1% sodium hypochlorite (Contact Time: 10 minutes). Damp dusting should be done in straight lines that overlap one another. Frequency: before starting daily work, after every procedure and after finishing daily work.

Delicate Electronic equipment Should be wiped with alcohol-based rub/spirit (60-90% alcohol) swab before each patient contact.

Phase II Implementation Phase

Tele-consult Tele-screening

- I. Telephone screening is encouraged as the first point of contact between the patient and the dentist or reception office is encouraged.
- II. Current medical history and past history particularly pertaining to symptoms of Severe Acute Respiratory Illness (fever AND cough and/or shortness of breath) or All symptomatic ILI (fever, cough, sore throat, runny nose) must be analysed .
- III. Any positive responses to either of the questions should raise concern, and care should be postponed for 3weeks except in dental emergencies.
- IV. Encourage all to download the Arogya Setu App.

Dental history and remote TRIAGE

- I. Obtain m Oral Health(Mobile Phone-based Oral Health) screening about dental history and try to manage problems with advice and analgesics and local measures.
- II. Clinics can evolve a web-based form which can also include a consent form.
- III. Comprehend dental treatment according to the urgency of the required treatment and the risk and benefit associated with each treatment.
- IV. Only pre-appointed patients should be entertained in the clinic whose history, problems and procedures are already identified to some extent through previous telephone and remote electronic or web-based systems.

What can patients do before arrival at a dental clinic?

- I. Minimise or eliminate wearing a wrist watch, hand and body jewellery and carrying of additional accessories bags etc .
- II. Use their own wash rooms at home to avoid the need of using toilets at the dental facility.
- III. Have a mouth wash rinse with 10 ml of the 0.5% solution of PVP-I solution (standard aqueous PVP-I antiseptic solution based mouthwash diluted 1 :20 with water) . Distribute throughout the oral cavity for 30 seconds and then gently gargle at the back of the throat for another 30 seconds before spitting out.
- IV. Wear a facemask during transport and before entering the premises.
- V. Have the body temperature checked and use a sanitiser on the entrance.
- VI. Patients consent and declaration to be obtained in a physical print out or electronic system.
- VII. Maintain social distance.

Protocols of patient handling in the clinic area

For appointments that do not result in aerosols, and need examination only wear a triple layer surgical mask and protective eyewear/face shield and gloves.

Wear N95 face masks, protective eyewear/face shields and gloves along with coverall for High Risk and very high-risk procedures. To increase the shelf life of N95 masks, you may cover them with a surgical mask and discard only the surgical mask after use.

When examining patients with moderate risks the treating doctor will require all PPE as high risk except that the coveralls can be substituted with surgical gowns.

Practice non-aerosol generating procedures.

Use of rubber dam is encouraged.

The 4-handed technique is beneficial for controlling the infection.

Patient discharge protocol

- I. The patient drape will be removed by the assistant, and the patient is asked to perform hand wash and guided out of the clinic towards reception and handed back his foot wears and belongings.
- II. The procedures and prescription is recorded only after doffing the PPE.
- III. Patient to perform hand hygiene and to be provided with review /follow up instructions.

Patient turn around and disinfection protocol

- I. After the patient leaves the treatment room, the Assistant will collect all hand instruments immediately, rinse them in running water to remove organic matter and as per standard sterilisation protocol.
- II. All 3 in 1 syringe, water outlets, hand piece water pipelines, etc. should be flushed with the disinfectant solution for 30-40 seconds.
- III. Remove water containers and wash them thoroughly and disinfect with 1% sodium hypochlorite using clean cotton/ gauge piece and then fill with fresh 0.01% sodium hypochlorite solution and attach back to the dental chair.
- IV. Then, disinfect the Dental Chair along with all the auxiliary parts within 3 feet of distance using 1% sodium hypochlorite and clean and sterilised cotton/gauge piece using inner to outer surface approach and leave for drying. New cotton/ gauge piece should be used for every surface. The areas include:
 - a. Patient sitting area and armrests
 - b. Dental chair extensions including water outlets, suction pipe, hand piece connector, 3 in 1 syringe, etc.
 - c. Dental light and handle
 - d. Hand washing area – slab and tap nozzle
 - e. Clinic walls around the dental chair and switchboards
 - f. Hand washing area – slab and tap nozzle
- V. Hand pieces should be cleaned using a hand piece cleaning solution to remove debris, followed by packing in the autoclave pouches for autoclaving. Record to be maintained for the same.
- VI. IMPRESSIONS will be thoroughly disinfected before pouring or sending to the laboratory using an appropriate disinfectant.

- VII.** Remove visible pollutants completely before disinfection. Mop the floor with 1% sodium hypochlorite solution through separate mops for the 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.

Biomedical waste management

Biomedical waste management area is to be equipped with required bins as per Government of India guidelines. (<https://www.cpcb.nic.in/uploads/Projects/Bio-Medical-Waste/BMW-GUIDELINES-COVID.pdf>)

Protocol for clinic closure

Fogging: It is used as '**No-touch surface disinfection**' and **not for disinfection of air** after a large area has been contaminated. The commercially available hydrogen peroxide is 11% (w/v) solution which is stabilized by 0.01% of silver nitrate. A 20% working solution should be prepared. The volume of working solution required for fogging is approximately 1000ml per 1000 cubic feet. After the procedure has been completed in the operatory (in case of no negative pressure), exit the room and close the operatory for half hour for the aerosols/droplets to settle down. Perform the 2 Step surface cleaning followed by fogging. The fogging time is usually 45min followed by contact time/dwell time of one hour. After that the room can be opened, fans can be switched on for aeration. Wet surfaces can be dried/cleaned by using a sterile cloth or clean cloth (other surfaces).

Protocol for health care workers on reaching home

On the way back home, follow all precautions and on return, follow the removal of shoes, change of clothes, having a wash and disinfect your mobile wristwatch etc.

Phase III Patient follow-up and Review

The patient should be contacted telephonically 24 hrs and in a week' time to know if he has developed any symptoms that should warn the dental Staff to undertake appropriate actions. He should be advised to inform back to the dental clinic should there be any adverse symptoms.

Health care workers who are required to attend dental ailments in remote locations in the government sector should provide advice and analgesics and refer the patient to dental surgeon for further management.

These are dynamic guidelines and will be updated from time to time, as required .