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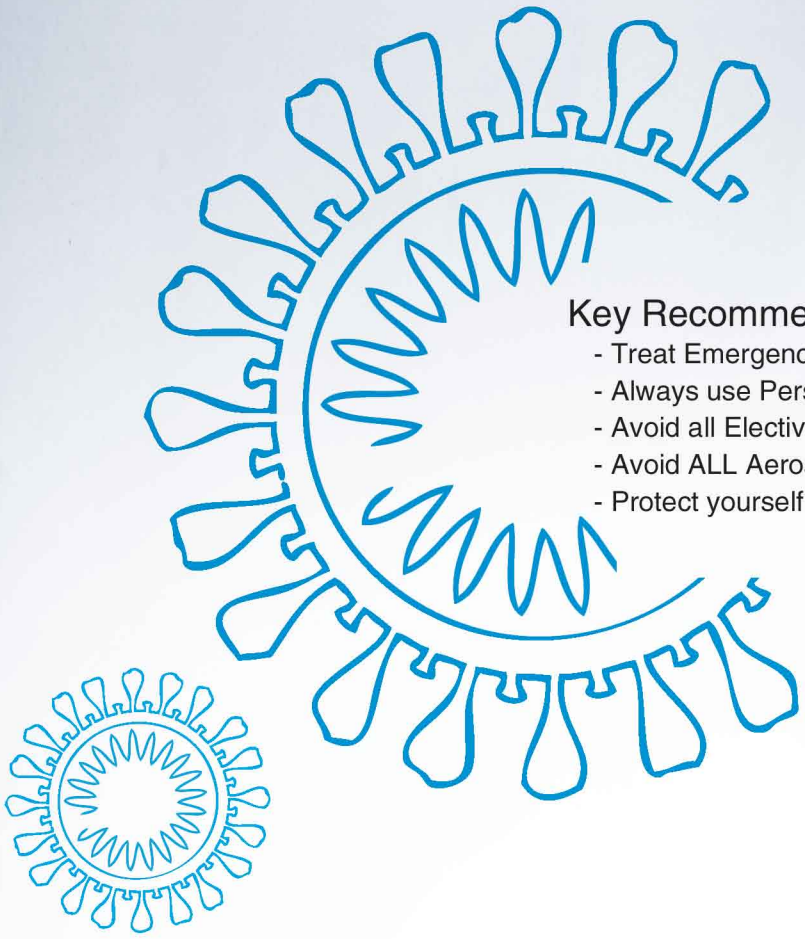
JOINT POSITION STATEMENT :

Dental Practice during COVID-19 Pandemic



Key Recommendations:

- Treat Emergency Patients only
- Always use Personal Protection Equipments
- Avoid all Elective and Urgent Procedures
- Avoid ALL Aerosol Producing Procedures
- Protect yourself and Protect your Patients

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STEP 1 DENTAL EMERGENCY ASSESSMENT – *Telephonic Triage only*

Dental Patient

Telephonic Consultation Only

Emergency Severity Index Assessment ***(Refer Table 1)***

URGENT CARE

Pharmacological Management (Table 2) & Telephonic Follow -up

If symptoms WORSEN

EMERGENCY CARE

To Be Attended To Immediately

SCHEDULED CARE

Schedule when Regular Dental Services Are Restored

STEP 2 COVID 19 SCREENING

COVID-19 Risk Questionnaire *(Refer Table 3)*

- ***Geographical location***
- ***History of Exposure***
- ***Temperature/respiratory symptoms***

HIGH RISK PATIENTS

LOW RISK PATIENTS

STEP 3 EMERGENCY DENTAL MANAGEMENT: (*Refer Table 4*)

*Does the Emergency Management Procedure produce **Aerosol ?***

YES

Attempt Emergency pain relief **without producing aerosol** : Slow speed micromotor/chemo-mechanical methods to enter pulp chamber.

If Not possible

Refer the patient to nearby **Emergency medical** facility for assessment and management

NO

Perform the Emergency Management Procedure

* Dental clinic should be compliant with Infection Control and Prevention Guidelines (Box 2)
* Any Patient Treated In Your Dental Set-up to be told to self quarantine at their own home.
*Patients should Be telephonically followed Up For 14 Days To Check For Development Of Any Symptoms Of COVID-19.
*If COVID -19 symptioms develop then health authorities to be notified

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Table 1 : Emergency Severity Assessment – Decision Making

Decision Point Question to be ascertained on first interface (physically / on telephone)			Level of emergency	Dental Conditions	Level of Intervention needed
Decision Point A	*"Does this patient require immediate **life saving intervention?"***	If yes ; Then ES1 If No , Move down	ES-1 **Emergency Care** Dental conditions leading to impairment of basic functions like breathing and swallowing	• Uncontrolled Bleeding • Diffuse Intra oral or Extra Oral Swelling which may obstruct the patient airway or with systemic effects • Severe Traumatic Injury, including extraoral tissues which can obstruct the airway	Need Immediate Care and should be **attended to immediately**
Decision Point B	"*Is the patient currently in **disabling pain/ infection** ?"*	If yes ; Then ES2 If No , Move down	ES-2 **Urgent Care** Dental Conditions that gravely effect the normal functioning of the patient like disabling pain/ infection *Disabling Pain may be described as severe constant pain or pain increasing in intensity which scores greater than 7 on numerical pain score scale*	• Symptomatic Irreversible Pulpitis • Primary & Secondary Symptomatic Apical Periodontitis • Acute Apical Abscess, or localized bacterial infection resulting in localized pain and swelling • Pericoronitis or third-molar pain • Surgical post-operative osteitis, dry socket dressing changes • Tooth fracture resulting in pain or causing soft tissue trauma • Dental trauma with avulsion	**Pharamacological Management** and patients to be kept on constant follow up for : Any Worsening of symptoms despite pharmacological management In case of the above, the patient should be scheduled for ***physical appointment as in Emergency Care*** If symptoms are relieved post pharmacological management; these patients should be *scheduled for a physical visit at the earliest convenience*
Decision Point C	*Can the condition **remain stable** for a period of time?*	If yes ; Then ES3	ES-3 **Scheduled /Elective Care**	• Loss of restorations with no pain • Dental trauma involving enamel and dentine only and asymptomatic • Replacing temporary filling on endo access openings in patients not experiencing pain	Such patients should be **only tele-counselled** and may be scheduled as a priority when regular dental services are restored.

Table 2 : Recommended medications for Emergency Care Patients reporting with severe dental pain during Covid-19 Pandemic

- The **most recommended drugs of choice**[24,25,26] for treating acute pulpitis are:

✓ Acetaminophen 1000 mg (every 6 – 8 hours) OR
✓ Ketorolac Tromethamine 10mg (every 6 hours) OR
✓ Piroxicam 20 mg (every 12 hours) OR
✓ Ibuprofen 600 mg (every 6 hours) [Use with caution]*

- The pain felt by patients diagnosed with symptomatic irreversible pulpitis may be also alleviated by administering *4 mg dexamethasone either by orally Or through intraligamentary and mainly supraperiosteal injections*[27].

- A Cochrane Review[28] illustrates that there is *not enough evidence to recommend the use of antibiotics to reduce pain in cases with irreversible pulpitis*. (Kindly note that if patient reports with signs and symptoms of acute apical abscess / cellulitis then appropriate antibiotic medications has to be given)

- Current WHO guideline[29] has not contraindicated the usage of Ibuprofen during COVID -19 Pandemic as on 27th March 2020. However with conflicting research in this issue this position statement would recommend the usage of alternative medications to ibuprofen given in this table above.

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TABLE 3 : Covid-19 Risk Assessment Chart

Geographical location – Areas Stage 3 of outbreak (Community Transmission)	History of exposure	Temperature/ Respiratory symptoms	Risk Category
+	+	+	HIGH RISK
+	+	-	
+	-	-	
-	+	+	
-	+	-	
-	-	+	LOW RISK
-	-	-	

Table 4: RECOMMENDATIONS FOR SPECIFIC DENTAL PROCEDURE:

No.	SUBJECT	RECOMMENDATION	REASON
4.1	**PROCEDURES TO BE AVOIDED**	**AVOID ALL AEROSOL PRODUCING PROCEDURES** Avoid tooth preparation with air turbine or electric handpiece Avoid use or ultrasonic or sonic scalers	To prevent aerosol production
4.1.1	**PROCEDURES TO BE MINIMIZED**	Avoid Intraoral radiographs or should be performed cautiously Avoid use of three way air- water syringe[43-45].	They tend to stimulate saliva secretion & induce coughing [29] [35]. To minimize aerosols
4.2	**GENERAL MEASURES**	Patient escorts should be discouraged. and patient should be instructed to maintain social distancing from others. Preferable to give non-overlapping appointments. Provide the patient with a surgical mask at the entrance of the clinic	To avoid disease transmission.
4.2.1	**PERSONAL PROTECTIVE EQUIPMENT (PPE)**	Prior to meeting the patient, the dentist should wear all PPE, including : **Protective eyewear, Masks (N-95/ FFP 2 / FFP 3 equivalent), Gloves, Head cap, Face shields and protective outerwear.**	These are strongly recommended for **ALL** healthcare providers and support staff in the clinic/hospital settings [19].
4.3	**PRE-PROCEDURAL MOUTHRINSE**	1% hydrogen peroxide or 0.2% povidone-iodine (Chlorhexidine is **ineffective** against SARS-CoV-2)	To reduce the salivary load of oral microbes, including potential SARS-CoV-2 carriage[36,37].

Table 4: RECOMMENDATIONS FOR SPECIFIC DENTAL PROCEDURE:

No.	SUBJECT	RECOMMENDATION	REASON
4.3.1	**MANAGEMENT PROTOCOL FOR ACUTE PULPITIS WITHOUT GENERATING AEROSOL**	✓ Preoperative administration of any nonsteroidal anti-inflammatory drug (NSAID) *1 h prior to the local anesthesia injection (Table 2)* . ✓ Local anesthesia with **2% lidocaine** with 1: 100,000 epinephrine (1.8ml). • Allow sufficient time (15 mins) for anesthesia to take effect • If required use supplemental buccal infiltration with **4% Articaine** with 1: 100,000 epinephrine (0.9 – 1.2ml) at the apex of the tooth to be treated[38-40] OR *Intraligamentary injection* 0.2ml of 2% lidocaine with 1: 100,000 epinephrine[41] • Buffered (alkanising) LA solution[42]	To achieve optimal anesthesia
		✓ **Mechanical/ Chemomechanical** caries excavation methods - • Dental dam isolation with high volume saliva ejectors. • Four handed technique[19] • Caries excavation with sharp spoon excavator to remove soft caries or Carisolv+ spoon excavator • **Slow speed micromotor handpiece without water spray** until pulp is exposed [19]	To prevent aerosol production
		✓ Perform Partial/complete **pulpotomy**. • Arrest bleeding with sterile cotton or soaked with **3% NaOCl** applied with slight pressure. Place sterile dry cotton and provide temporary seal.[46] • If bleeding is not arrested, place **arsenic-free pulp devitaliser** and temporary filling.[19] • Prescribe **NSAIDs approved** by the local government health authorities for post-operative pain management (Table 1B)	To provide interim relief
		Where indicated, **extraction** followed by suture placement.	Promote hemostasis.

Table 4: RECOMMENDATIONS FOR SPECIFIC DENTAL PROCEDURE:

No.	SUBJECT	RECOMMENDATION	REASON
4.3.2	**EMERGENCIES THAT REQUIRE AEROSOL PRODUCING PROCEDURES**	1. Any procedure which would involve aerosol production; should **ONLY** be done in dental/medical set-ups **equipped with negative pressure or AIIR (AIRBORNE INFECTION ISOLATION ROOM) treatment rooms** which allow for complete disinfection to prevent cross-contamination.[19]. 2. If the concerned dental set-up is not prepared with same, then patient should be **directed toward equipped dental centre in his area / the local medical authorities** for assessment and management [46].	To avoid disease transmission
4.4	**DISINFECTION OF THE CLINIC SETTINGS[44,47]**	*General areas* - frequently clean and disinfect, including door handles, chairs, and desks. *Disinfectants* - Isopropyl alcohol, 1 % sodium hypochlorite *Reusable instruments* - pretreated, cleaned, sterilised, and properly stored. (Refer Box 2)	
4.5	**WASTE MANAGEMENT**	Medical and domestic waste should be marked and disposed in accordance with the Biomedical Waste Management and Handing Rules 2016, 2018[48,49].	

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Use of PERSONAL PROTECTION EQUIPMENT:

The use of PPE, including **protective eyewear, masks, gloves, caps, face shields, and protective outerwear, is strongly recommended** for all healthcare givers in the clinic/hospital settings during the COVID-19 pandemic [19].

a. A t**riple-layered surgical mask** can be worn by all health care providers when within 1–2 meters of patient.

b. **Particulate respirators** (N-95 masks authenticated by the National Institute for Occupational Safety and Health or FFP2-standard masks set by the European Union) are recommended for routine dental practice[27,28].

c. If available an **FFP3-standard mask** should be used and in COVID-19 positive patients this would be considered essential.

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Box 1: GENERAL RECOMMENDATION CHECKLIST FOR DENTAL CENTRES BEFORE TREATING PATIENTS DURING COVID 19 PANDEMIC*

- Place Visual Alerts for patient awareness using posters on COVID-19 pandemic awareness, cough etiquette and hand hygiene practices
- Modify existing patient waiting area seating arrangement to enforce social distancing of 1 to 2 meters
- Insist on use of Alcohol Based Hand Rub (ABHR) for ALL upon entry into your dental practice.
- Provide face mask for all patients prior to consultation.
- Tissue paper dispenser and foot operated waste bin mandatory in patient waiting room
- Mandatory provision for hand washing with soap and water
- Avoid usage of commercial split/ centralized / window air conditioners unless equipped with High Efficiency Particulate Air (HEPA) filters
- It is recommended to use natural and mechanical ventilation using fans and exhaust

*Adapted from National guidelines for infection prevention and control in healthcare facilities, National Centre for Disease Control, Directorate General of Health Services. Ministry of Health and Family Welfare, Government of India. January 2020

*https://www.cdc.gov/infectioncontrol/guidelines/environmental/index.html Guidelines for Environmental Infection Control in Health-Care Facilities Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC)

Box 2: RECOMMENDED DISINFECTION AND STERILIZATION PROTOCOLS FOR DENTAL CLINICS TREATING PATIENTS DURING COVID-19 PANDEMIC

A. Treatment area/patient care area

- All critical, heat resistant semi critical instruments and handpieces should be cleaned and sterilized after each use or discarded.
- Heat sensitive semi-critical items can be processed with high-level disinfection eg. 2% Gluteraldehyde.
- High touch/clinical surfaces that are difficult to clean must be covered using a physical barrier for every patient or disinfected between patients. (Eg: 1 % Sodium hypochlorite or 70% alcohol)
- Use moistened wipe / cloth to clean all surfaces with freshly prepared disinfectant solution. (Eg: 1 % Sodium hypochlorite or 3% hydrogen peroxide). Always Discard remnant diluted solution
- Floor - Use Wet Moping- Multi Bucket Technique :
  (i) Water followed by
  (ii) Detergent followed by
  (iii) Low Level Disinfectant like 3% hydrogen peroxide, 1% Sodium hypochlorite or EPA approved agents
- Mop heads and cleaning cloths must be decontaminated regularly by Laundering (heat disinfection) with detergent and drying at 80 °c and changed frequent
- Do not perform disinfectant fogging / fumigation

B. Reception and patient waiting area

- Avoid sweeping with broom
- Use wet moping with warm water and detergent or hospital disinfectan (eg. 1 % Sodium hypochlorite).
- High touch surfaces must be cleaned more frequently with detergent/ disinfectant.

Note: Disinfectants approved by the Environmental Protection Agency, Disinfectant List Coronavirus Disease 2019 (COVID-19) 03/13/2020 are recommended for surface disinfection procedures. https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2 LAST UPDATED ON MARCH 13, 2020.

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TABLE 5 : PREPAREDNESS CHECKLIST TO VERIFY BEFORE TREATING A PATIENT IN YOUR DENTAL SET-UP*

POINTS TO BE CHECKED	YES / NO
✓ Does the Patient need Emergency Dental Care and cannot be managed by pharmacological management as given in Table 1 and Table 2 ?	
✓ Are the required dental procedures non-aerosol producing procedures or can be managed with alternative options (Micro motor / Chemo-mechanical) ?	
✓ Is your dental practice equipped with Personal Protection Equipments including protective eyewear, masks (N-95/FFP2/FFP3 standard), gloves, head caps, face shields, shoe cover and protective outerwear ?	
✓ Does your dental practice comply with the disinfection and sterilization protocols given in Box 2 ?	
✓ Do you know where and how to report a potential COVID-19 case or history of direct exposure for quarantine in your geographical area ?	
✓ You and your team members DO NOT have any history of direct exposure to COVID 19 and DO NOT have high temperature or respiratory symptoms ?	

* IES & IFEA strongly recommend that a dental practitioner should not treat patient in his clinic UNLESS he/she is able to comply with ALL points in the above Checklist. In case a dental practitioner does not comply with all six parameters of above check list then he/ she should refer the patient to an equipped dental center / local medical authorities.

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Endodontic and Dental Practice during COVID-19 Pandemic: Joint position statement from International Federation of Endodontic Associations & Indian Endodontic Society

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