



MDA Safety Advisory to Dental Practitioners during the current Concern of COVID - 19 Infection during Conditional / Recovery - Movement Control Order (Updated: 22.10.2020)

1. PREAMBLE

We are currently still in the Recovery – Movement Control Order, now extended until 31st December 2020. With the recent surge in the number of positive cases in a few states / areas, Conditional – Movement Control Order has recently been implemented, with some areas to the extent of Targeted Enhancement – Movement Control Order. This clearly shows the need to continuously keep ourselves updated on the local and international progress of this pandemic and to play our part to maintain Universal Infection Control Precaution in our daily practice as this profession works in close proximity to the oral cavity, rendering this profession at high risk of exposure to COVID-19 infection. Till now, it is still deemed unpractical to have every patients coming for dental treatment in the clinic to undergo RT-PCR / RTK to screen for COVID-19. **It is also important to realise that dental services is listed under essential services and the continuation of service to the general public remains.** Hence, this advisory is now updated to share new developments and recommendations.

What is new in this document?

- a. Category of High Risk patients
 - b. Criteria for suspected COVID-19 individuals
 - c. Added documents to read with this advisory and suggested treatment procedures according to COVID-19 zones (RED / YELLOW / GREEN)
2. **STAFFS AND GENERAL AREAS.** Do keep all your staffs aware and updated of the current situations. All staffs, patients and accompanying persons are to observe proper hand hygiene and to **always practice cough and sneeze etiquette (provide good visual signage)**. Staffs who are unwell should seek medical attention. Keep the clinic waiting area **well-ventilated**. All public areas of the clinic and contact surface area including door knobs, handles and desks are to be cleaned regularly (3-4 times a day) with standard disinfectants. Practice physical distancing of at least 1 meter at waiting area and other general areas. **Cleaners are to be equipped with surgical mask, long sleeved plastic apron, eye protection and boots.**
3. **SCHEDULING APPOINTMENTS.** Schedule appointments well to avoid overcrowding of waiting area. Patients can also wait in their cars until called by the receptionist. Limit the number of accompanying family members or friends and if possible, avoid bringing children or the elderly as companion. Patients are encouraged to call the clinic prior to arrival and also consider calling your patients in advance before their appointment to enquire on their health status, travel history and possible contact with COVID-19 patients.
4. **SCREENING AND TRIAGING.** Screen (including temperature taking) all your patients and their companions as they arrive. Individuals' COVID-19 risk status can also be viewed from their **mySejahtera apps**. All visitors are to maintain physical distancing and to put on surgical mask. Prepare adequate hand sanitizers for patients' use as they walk in. Provide good visual signage requesting patients to declare symptoms, travel history or contact with a confirmed case. Kindly request your patients (and accompanying person) to fill up the Health Declaration Form (refer to attached document in this website). **Staffs at the screening & triaging area and**

registration counter are to be equipped with surgical mask and eye protection. Maintain physical distance and observe frequent hand hygiene.

The following categories of patients are considered **High Risk** and are best treated at the respective facilities that cater treatment for these patients:

- Patient under Investigation (**PUI**) awaiting results of COVID-19 test
- Person under Surveillance (**PUS**) awaiting results of COVID-19 test
- Home Surveillance Order (**HOS**) awaiting results of COVID-19 test
- Confirmed **COVID-19 positive** patients
- **Recovered COVID-19** patients **less than 14 days after discharge**
- Probable case of COVID-19. A person with RTK Ag positive awaiting for RT-PCR confirmation OR a suspect case with chest imaging showing findings suggestive of COVID-19 disease

5. **WHEN SHOULD YOU SUSPECT COVID-19?** Remember that it is not always possible to identify patients with COVID-19 early because some have mild or unusual symptoms. COVID-19 is to be suspected when a person meets the **clinical and epidemiological criteria**:

(a) Clinical criteria

In the absence of a more likely diagnosis:

- i. At least **two** of the following symptoms:
 - Fever
 - Chills
 - Rigors
 - Myalgia
 - Headache
 - Sore throat
 - Nausea or vomiting
 - Diarrhoea
 - Fatigue
 - Acute onset nasal congestion or running nose

OR

- ii. Any **one** of the following symptoms:
 - Cough
 - Shortness of breath
 - Difficulty in breathing
 - Sudden new onset of anosmia (loss of smell)
 - Sudden onset of ageusia (loss of taste)

OR

- iii. Severe respiratory illness with at least **one** of the following:
 - Clinical evidence of pneumonia
 - Acute respiratory distress syndrome (ARDS)

(b) Epidemiological criteria

Attended an event OR areas associated with known COVID-19 cluster OR red zones;

The list of red zone areas is based on the 14 days moving data by mukim / zon / present updated daily in the CPRC telegram: <https://t.me/cprckkm>

OR

Travelled to / resided in a foreign country within 14 days before the onset of illness;

OR

Close contact to a confirmed case of COVID-19, within 14 days before onset of illness

close contact defined as:

- i. Health care associated exposure without appropriate PPE (including providing direct care for COVID-19 patients, working with health care workers infected with COVID-19, visiting patients or staying in the same close environment of a COVID-19 patient).*
- ii. Working together in close proximity or sharing the same classroom environment with a COVID-19 patient.*
- iii. Traveling together with COVID-19 patient in any kind of conveyance*
- iv. Living in the same household as a COVID-19 patient*

If criteria (a) and (b) above are met, ensure that the patient wears surgical mask (if patients' condition permits) and wait in an area more than 1 – 2 m away from those in the waiting area (do explain why this is necessary). The dental practitioner on duty should be informed immediately if such patients are received. It is advisable to request that they postpone their appointments and **refer them** to seek medical attention as soon as possible or if they are in need of urgent dental treatment (refer to Annex 3 of Guidelines on COVID-19 Management in Malaysia No. 5/2020, <http://covid-19.moh.gov.my/garis-panduan/garis-panduan-kkm>). The area should be disinfected after the patient has left.

If only criteria (a) is met, ensure that the patient wears surgical mask and advise patient to seek medical attention if this has not been made and **consider** postponing non urgent dental procedure (**remember that we are dealing inside the oral cavity most of the time**). Advise them to be responsible by taking measures / practices (Annex 6a, Annex 10b of Guidelines on COVID-19 Management in Malaysia No. 5/2020, <http://covid-19.moh.gov.my/garis-panduan/garis-panduan-kkm>):

- Stay at home and monitor body temperature to look out for fever ($\geq 38^{\circ}\text{C}$), symptoms of cough and/or breathing difficulty for the next 14 days. Seek medical advice immediately if not feeling well.
- Be contactable at all time by their family / friends.
- Limit visitors to their house.
- List the names of those visiting / who comes to visit.
- Always practice good cough and sneeze etiquette

- If develop any symptom, always wear facemask. If they do not wear face mask, close their mouth and nose with tissues when coughing or sneezing. Throw the tissues into closed dustbin and immediately WASH HANDS with soap or hand sanitiser
- Limit distance with healthy person (s) to at least 1 meter
- Wear face mask when going out of their room and avoid contact with others
- Open all windows in their house to ensure good ventilation
- Do not share utensils, tableware and personal hygiene items

The dental practitioners' discretion on this matter is prudent (we do not want to miss a case of acute odontogenic infection that may also present with fever and sometimes with shortness of breath). Please refer the Code of Professional Conduct published by MDC, if such decision of not treating a patient is made. On this note, do ensure proper explanation to the patient is made and document the discussion in the records.

6. DENTAL PROCEDURES IN THE DENTAL SURGERY.

Suggested treatments based on COVID-19 Zone:

RED Zone : Only emergency treatment

YELLOW Zone: Emergency and Elective treatment (with caution)

GREEN Zone: Emergency and Elective treatment (with caution)

Always maintain a high standard of Universal Infection Control Precaution (hand hygiene, management of aerosol generating procedures (AGPs), sterilisation of instruments and handling of sharps and injections. Dental practitioners and the dental surgery assistants need to don appropriate PPEs when examining or treating patients. In the context of COVID-19, airborne transmission may be possible in specific circumstances and settings in which procedures or treatments that generate aerosols are performed. In the dental settings, 90% of aerosols produced are extremely small, less than 5 micron, in fact as small as 0.3 – 0.5 micron or probably **even smaller**^{9,10}. Standard Personal Protective Equipment for dental treatment includes:

- Surgical masks,
- Isolation gown (water proof) ,
- Gloves
- Goggles / face shield
- Head cover.

Kindly refer to Appendix A for the Donning & Doffing procedure (adapted from <https://www.cdc.gov/hai/pdfs/ppe/ppe-sequence.pdf>)

Additional considerations to be observed to minimise the hazards of aerosols during AGPs includes:

- During the height of the pandemic, many experts and authorities have spoken on the appropriate usage of surgical masks and respirators. Dental practitioners need to be aware that these PPE may not provide full proof protection against SARS-CoV-2. A **good seal / fit** is necessary when donning surgical masks or respirators and best **removed after leaving the operatory room**. Kindly refer to Appendix B technical specifications of the various level of surgical masks and N95 respirator.
- Rubber Dam isolation where appropriate⁷
- High vacuum suction / High – volume evacuators⁷
- Pre-operative mouthwash Suggested pre-operative antimicrobial mouth – rinse include the use of 1% hydrogen peroxide¹, or 0.2% povidone^{1,2}. Although other

antimicrobial mouth-rinses such as 0.12% or 0.2% Chlorhexidine were suggested^{3,4}, some claimed that chlorhexidine may not be effective to kill 2019-nCoV¹

- Study on aerosol produced by certain AGPSs showed that aerosol can reach a distance of up to 2 – 3 feet and stays airborne for 20 – 30 minutes^{5,7,8}. Hence, taking into consideration of this fact, there is a need to observe a reasonable turnover time between patient and disinfection of clinical contact surfaces. As coronaviruses have a lipid envelope, a wide range of disinfectants are effective. It can be efficiently inactivated by surface disinfection procedures with 62-71% ethanol, 0.5% hydrogen peroxide or 0.1% sodium hypochlorite within 1 minute. Other biocidal agents such as 0.05-0.2% benzalkonium chloride has also been suggested but were reported by some to be less effective^{11,12}. Some of these disinfectants are also mentioned in the Guidelines on Infection Control in Dental Practice (2017), published by Malaysian Dental Council.
- Improving the ventilation in the dental surgery, such opening windows, ventilation fan, air cleaner, High-Efficiency Particulate Air Room Filter has also been suggested^{6,7,13}

General Statement

IMPORTANT: Please kindly read our advisory together with:

- (i) Guidelines on COVID-19 Management in Malaysia No. 5/2020 updated 19th October 2020 from the office of Director – General of Health Malaysia (<http://covid-19.moh.gov.my/garis-panduan/garis-panduan-kkm>)
- (ii) Garis panduan pengendalian isu-isu berhubung penularan jangkitan wabak COVID-19 di Perkhidmatan Kesihatan Pergigian Bil. 3/2020 dated 17th April 2020, from Oral Health Program, Ministry of Health Malaysia (available on MDA Homepage)
- (iii) Garis panduan perkhidmatan kesihatan pergigian pasca perintah kawalan pergerakan pandemik COVID-19 No.2/2020 dated 18th August 2020, from Oral Health Program (available on MDA Homepage)
- (iv) Guidelines on Infection Control in Dental Practice, 2017, from Malaysian Dental Council
- (v) Code of Professional Conduct, 2014, from Malaysian Dental Council

This advisory is only for guidance to members, who should stay up-to-date about all local developments and guidelines in regard to the COVID-19 pandemic and apply accordingly based on their clinical judgment, experience and clinical facilities, specifically patient evaluation, and treatment during this trying times. The intention is to minimise any possibility of transmission of the coronavirus to patients and / or the dental team to the best extent possible, and to ensure safety of our family members. MDA cannot be held responsible for any oversight and will continue to update the advisory as best as we can.

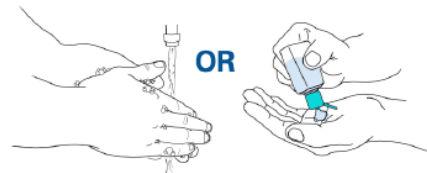
Reference:

1. Peng et. al. 2020. Transmission routes of 2019-nCoV and controls in dental practice. *International Journal of Oral Science* 12:9
2. Maren et. al. 2018. In vitro bactericidal and virucidal efficacy of Povidone Iodine gargle / mouthwash against respiratory and oral tract pathogens. *Infect Dis Ther* 7: 249-259
3. Kohn et. al. 2003. Centers for Disease Control and Prevention. Guidelines for infection control in dental health-care settings—2003. <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm>
4. Marui et. al. 2019. Efficacy of preprocedural mouthrinses in the reduction of microorganisms in aerosol: a systematic review. *J Am Dent Assoc.* 150(12):1015–1026

5. Veena et al. 2014. Dissemination of aerosol and splatter during ultrasonic scaling. A pilot study. *Journal of Infection and Public Health*. 8(3): 260-265
6. Chun Chen et. al. 2010. The effectiveness of an air cleaner in controlling droplet/aerosol particle dispersion emitted from a patient's mouth in the indoor environment of dental clinics. *J. R. Soc Interface* 7 1105-1118
7. Harrel and Molinari. 2004. Aerosols and splatter in dentistry. A brief review of the literature and infection control implications. *JADA* Vol. 135 (April 2004): 429-437
8. Chuang et. al. 2014. Investigation on the spreading characteristics of bacterial aerosol contamination during dental scaling treatment. *Journal of Dental Science* (2014) 9: 294-296
9. Baumann et. al. 2018. Dental Aerosols: The infection connection. *Dimensions of Dental Hygiene* 16(10):12,14,16-17
10. Liu et. al. 2019. Removal efficiency of central vacuum system and protective masks to suspended particles from dental treatment. *PLoS ONE* 14(11): e0225644. <https://doi.org/10.1371/journal.pone.0225644>
11. Sandle. 2020. COVID-19 and dental practice. *Dental Nursing*. <https://www.magonlineibrary.com/doi/pdf/10.12968/denn.2020.16.4.194>
12. Wu et. al. 2020. The outbreak of COVID-19: An overview. *J Chin Med Assoc*. Vol. 83 (3): 217-220
13. Meng et. al. 2020. Coronavirus Disease 2019 (COVID-19): Emerging and Future Challenges for Dental and Oral Medicine. *Journal of Dental Research*. <https://doi.org/10.1177/0022034520914246>

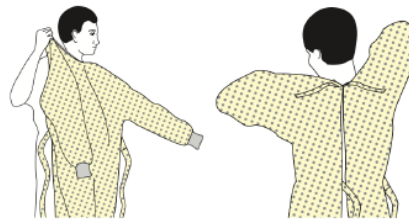
SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITISER



2. 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



3. 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



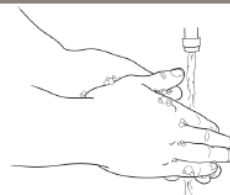
4. GOGGLES/FACE SHIELD & HEAD-COVER

- Place over face and eyes and adjust to fit



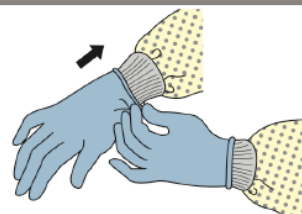
5. WASH HANDS

- 7 steps of hand-washing



6. GLOVES

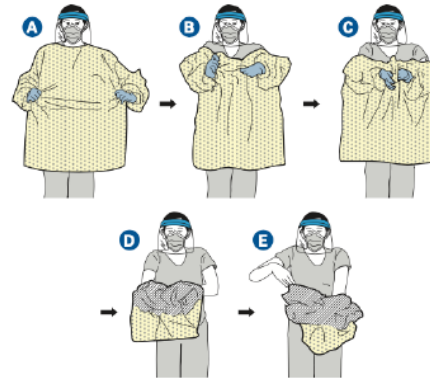
- Extend to cover wrist of isolation gown



SEQUENCE FOR REMOVAL OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. GOWN & 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 sanitiser
- 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/FACE SHIELD & HEAD CAP

- 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 sanitiser
- 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 sanitiser
- 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 IMMEDIATELY AFTER REMOVING ALL PPE




DIFFERENCES BETWEEN FACE MASK AND RESPIRATORS

	 Non-Medical / Cloth Mask	 Surgical / Medical Mask	 Particulate Respirators	 Medical Respirators
ASTM Level /NIOSH	Not Applicable	Non ASTM, ASTM Level 1, ASTM Level 2, ASTM Level 3	NIOSH N95, NIOSH N99, NIOSH N100	
Filtration Efficiency	Bacterial Filtration Efficiency (BFE) In Vitro			
	Not Applicable	ASTM Level 1: ≥ 95% ASTM Level 2: ≥ 98% ASTM Level 3: ≥ 98%	99.9%	
Breathing Resistance	Submicron Particle Filtration Efficiency (PFE)			
	Not Applicable	ASTM Level 1: ≥ 95% @ 0.1 micron ASTM Level 2: ≥ 98% @ 0.1 micron ASTM Level 3: ≥ 98% @ 0.1 micron	99.9% @ 0.1micron	
Flush/Splash Resistance	Not Applicable	ASTM Level 1: < 4.0 H ₂ O/cm ² ASTM Level 2: < 5.0 H ₂ O/cm ² ASTM Level 3: < 5.0 H ₂ O/cm ²	> 5.0 H ₂ O/cm ²	
	Not Applicable	ASTM Level 1: 80mmHg ASTM Level 2: 120mmHg ASTM Level 3: 160mmHg	160mmHg	
Use Limitation	Reusable	Disposable. Discard after each patient encounter.	Ideally should be discarded after each patient encounter and after aerosol-generating procedures. It should also be discarded when it becomes damaged or deformed; no longer forms an effective seal to the face; becomes wet or visibly dirty; breathing becomes difficult; or if it becomes contaminated with blood, respiratory or nasal secretions, or other bodily fluids.	

References:

- <https://www.cdc.gov/niosh/qaqa/qaqa-UnderstandingDifferences3-2018.pdf>
- <http://airp.com/NOVEMBER%202013/02%20CHELLAMANN%201.pdf>
- <https://www.3m.com/3m/>
- <http://www.zhifanode.com/COVID-19/202002/PCD2202110338816051741.pdf>
- <https://www.fda.gov/oc/ohrt/hand-hygiene/2020-01-30/191-fve-type-face-mask-some-order-price-control>
- <https://www.cdc.gov/niosh/qaqa/qaqa-UnderstandingDifferences3-2018.pdf>
- http://singlish.com.gov.my/2020/02/02/20200202/19/constant_W5ba733ba842a201201ba03.html
- <https://www.fda.gov/oc/ohrt/hand-hygiene/2020-01-30/191-fve-type-face-mask-some-order-price-control>



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