

# **COVID-19 – Update – Professional Guidelines**

Globally we are currently facing extraordinary challenges in the wake of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which is the virus strain that causes coronavirus disease 2019 (COVID-19), a respiratory illness.

COVID-19 has developed in record time into a serious human pandemic and economic crisis of global dimensions, and we in South Africa are also observing its evolution with much anxiety, concern and uncertainty.

As a result, dental professionals (under the ambit of the Board, i.e. dental assistants, dental therapists and oral hygienists) across the country have had to react rapidly and implement appropriate safety measures to help contain the spread of SARS-CoV-2 that causes this disease.

Since the start of the pandemic, the HPCSA as a Regulatory Council has issued numerous communiques (18 March 2020, 25 March 2020, 26 March 2020 and 27 March 2020) providing general advice to professionals on how to manage the COVID-19 pandemic and referring professionals to the National Department of Health and the National Institute of Communicable Diseases (NICD), clinical guidelines for health workers, as well as information provided by these sites on frequently asked questions, a quick reference infographic and information on communicable diseases to assist healthcare professionals.

The HPCSA is concerned about dental healthcare professionals wellbeing and those under their care and recommends following the NICD directives when dealing with COVID-19. Moreover, the HPCSA urges professionals to also take care of their own health and to seek help when needed. Furthermore, the Department of Health, the Department of Labour and Employment and the National Institute for Communicable Diseases amongst others provided detailed guidelines for workplaces and the public. This communique serves to supplement these guidelines whilst contextualising measures specific for dental settings.

As a regulator, the Professional Board for Dental Assisting, Dental Therapy and Oral Hygiene, has an important responsibility towards patients and professionals, as well as a social responsibility to protect the health and well-being of all persons in South Africa. As a Board we take all obligations seriously and has participated through various platforms to assist in the development of practice guidelines.

SARS-CoV-2 is a new strain of the coronavirus group and as such the pool of knowledge surrounding the virus and its attributes is rapidly evolving. So too is the literature, and as such it is understandably difficult for the Board to provide a set of guidelines that are lasting, as the disease epidemiological and pathological profile is dynamic and ever-changing. However, the Board will provide a set of generic guidelines and recommendations that may be used in practice, in addition to the universal precautions on infectious disease management protocols once the national lockdown is eased or uplifted. It is essential to recognise and acknowledge that these guidelines may in the future become obsolete as research generates new information about this disease, its diagnosis, pathology, treatment and prevention.

Members of the Board for Dental Assisting, Dental Therapy and Oral Hygiene have provided input, or collaborated with the National Department of Health, dental associations and educators to develop guidelines. We urge professionals to follow the guidelines issued by these structures such as the South African Dental Association (SADA) and the National Institute for Communicable Diseases (available at [www.nicd.ac.za](http://www.nicd.ac.za)). Please refer to the reference list to access some of these guidelines.

### ***Protecting the patient and the dental team***

As a Board we caution that dental professionals might be more susceptible than other professionals to contracting and transmitting the virus owing to their prolonged and close proximity to patients; the generation of aerosols, possible spatter of patients' secretions, saliva or blood; aerosols generated by high-speed handpieces and ultrasonic devices; and through pathogenic microorganisms attached to the various dental instruments. We therefore recommend that dental professionals avoid treating patients suspected of having already contracted the virus. This is in itself a challenge as some patients are asymptomatic and unaware of their status. Considering the high risk of transmission in dentistry, all patients must be treated with due diligence to infection control protocols and with specific preventive measures pertaining to SARS-CoV-2

### ***Treatment of patients***

Whilst healthcare has been defined as an essential service in terms of the Disaster Management regulations clear guidelines specific to dentistry were not provided. Additionally, there were recommendations from professional associations and bodies nationally and internationally to limit dental treatment to "emergencies". It is difficult to define what is a dental emergency, as patients are individuals with their own needs, pain thresholds etc., and thus the definition of a

dental emergency becomes subjective. The Board trusts that professionals will use their clinical acumen, apply sound clinical reasoning, and due diligence in assessing and triaging patients as emergencies, non-emergency and elective treatment cases.

A list of recommendations for dental professionals to help limit the transmission of SARS-CoV-2 in their practices, whether it be in private or public sector, include standard measures such as thorough and regular hand-washing; use of appropriate protective masks, gloves and eyewear; and the need for strictly following all sterilization and disinfection procedures.

As it is almost impossible to distinguish between asymptomatic and non-contagious patients it is very important to protect both patients and professionals. Therefore it is essential that dental professionals (and even administrative staff) employ precautionary measures such as wearing extensive protective clothing (not limited to medical masks, caps, gloves, goggles or face shields, shoe covers up to the knee and surgical gowns). It is recommended that the use of ultrasonic aerosol-generating scaling and restorative handpieces be curtailed, and that hand instruments / non-aerosol generating handpieces only be used for prophylaxis and restorations. It is also recommended that in the event of the need to perform an essential aerosol-generating procedure it is advised that dental dams and high-volume saliva ejectors be used. The Board also understands the difficulty in obtaining the appropriate PPE, at reasonable prices, and urges professionals to ensure that only quality assured PPE is purchased. There is ample evidence of a flood of fake, or inferior and sub-standard PPE which may supply minimal, or no, protection to both patient and professional. The Board urges professionals to source PPE from reputable suppliers.

Additionally, the Board recommends that since intra-oral radiography stimulates saliva secretion and coughing, consideration should be given to the use of extra-oral radiography, if justified. Current evidence also suggests that the use of a pre-treatment mouthwash for patients may assist in decreasing the viral load of the aerosols generated. The pre-screening of patients prior to even entering the treatment facility is also recommended. This pre-screening is not limited to questions around travel history, but also screening for COVID-19 symptoms and the measuring of patient's temperatures.

### **Reorientation of dental practices**

Dental practices will have to be creative in the reorientation/redesign of their dental room setup in order to facilitate the implementation of the additional infection control measures. Cognisance

must be given to sanitation areas, time between patients (settling of bio-aerosols), entrance and exit points etc.

The Department of Health and the Department of Employment and Labour has issued guidelines on the Workplace Preparedness. Refer to the reference list provided for detailed guidelines.

### **Quarantine**

Quarantine – which entails separating asymptomatic individuals potentially exposed to disease from non-exposed individuals in order to slow down pathogen transmission – may be used. This may require considerable use of resources and infringement to human rights.

Quarantine should be distinguished from isolation, which is the act of separating a diseased individual with a contagious disease from healthy individuals without the disease. Quarantine may be voluntary (e.g. asking contacts of infectious cases to stay at home or a designated facility for 14 days) or involuntary (i.e. using legal powers to enforce quarantine against a person's will). Quarantine may be applied at an individual patient level or at the level of a group or community of exposed persons.

### **Dental Assisting Examinations**

A number of dental assistants were to have sat for the Board dental assistant examination, as part of the requirements of their registration. The Board has taken steps to ensure that these professionals are able to retain their registration, and further details of the examination dates will be made available once there is certainty about the easing or end of the lockdown.

### **Student Training**

The board understands that student training, and especially practical and clinical training has been compromised. The Board is engaging with the Dept. of Higher Education, the Council on higher education and the universities and universities of technology to ensure that student training is adapted but remains of a high standard. The Board will cooperate with Higher Education Institutions to ensure that alternate teaching and assessments methods are employed, and that adjustments are made to the programme to ensure that adequate, quality assured teaching and learning occurs, and that students graduate as competent professionals.

### **Annual Registration and Fees**

The HPCSA has informed all professionals that the due date for annual renewals and payment of registrations has been extended from 1 April 2020 to 1 July 2020. Professionals should ensure that their annual fees are paid by the 30 June 2020. Professionals are once again encouraged to utilise the online portal for the renewal of their registration, where they will also access their annual practising certificate. Professionals may also access their profile using the HPCSA mobile app that is available on this link: <https://hpcsamobileapp.co.za/>

NB: All annual practising certificates which expired on 31 March 2020 are now valid until 30 June 2020.

### **Continuous Professional Development**

Healthcare professionals have a responsibility to continually update their professional knowledge and skills for the end benefit of the patient or client. To this end the HPCSA has implemented a Continuing Professional Development programme. Every professional is required to accumulate 30 Continuing Education Units (CEUs) per twelve-month period (in the case of dental assistants 15 CEUs are required) and five of the units must be on ethics, human rights and medical law. Each CEU will be valid for 24 months from the date on which the activity took place (or ended, in the event of post-graduate studies) after which it would lapse. This means that professionals should aim to accumulate a balance of 30 / 60 CEUs by the end of their second year of practise, and thereafter top-up the balance through additional CPD as each 24-month validity period expires. Mandatory random audits are conducted to ensure compliancy. Once a professional's name has been selected, they are required to submit a CPD portfolio to Council within 21 days. However, all audits have been suspended for the foreseeable future.

Professionals are encouraged to continue to engage in CPD during this period. Various activities, both formal and informal, accredited and non-accredited, can be undertaken. These activities include, but are not limited to, online meetings, webinars, seminar presentation, reading journal articles, attending formal online workshops and studies. A search of the internet reveals numerous low-cost or free CPD activities that have been made available during this period.

### **Economic impact**

The Board understands that it is devastating for any dental practice to be shut down for such a long time. The Board recognises the economic impact of the lockdown, and in general the decline in revenue that can be expected currently and in the future. Whilst the government and some financial institutions has offered some fiscal relief, this may be insufficient. The Board urges professionals to carefully review their employment contracts and finances in the face of uncertainty.

### **Conclusion**

As a Board we remain optimistic and there will be positives to be taken away from this global crisis. We have already seen suggestions and developments from professionals within the ambit of the profession, as well as professionals assisting and collaborating with each other to address and overcome challenges, and this is commendable. It is more important than ever that we stay safe, respecting social distancing and hygiene recommendations, remain calm, show solidarity with the governments and stand by each other. Everyone's health is our outmost priority and we are convinced we will overcome this obstacle together.

We wish all of you, your families and your staff a safe and successful return to normal activity. Please take care of your loved ones, your colleagues, your patients and your family and friends. Please find attached some recommendations below.

Warm regards

Dr TA Muslim

Chair – Professional Board for Dental Assisting, Dental Therapy and Oral Hygiene  
Health Professions Council of South Africa

### **Some ways to keep your dental practice safer during the COVID-19 crisis**

In order to keep yourself, your dental practice and your patients safe we have compiled a list of procedures and precautionary measures that you can implement.

#### **1. Disinfection/Sterilisation**

There are three principal modes of virus spread, all of which are relevant to the field of dentistry; These are:

- **airborne spread**—owing to exposure to bodily fluids and generated droplets, spatter and aerosols;
- **contact spread**—owing to contact with bodily fluids, patient materials, contaminated dental instruments and environmental surfaces; and
- **contaminated surface spread**—since coronaviruses can persist on various surfaces for a prolonged time (depending on the type of surface) and could contaminate the entire dental practice.

### *Disinfect the clinic environment*

Effective and strict disinfection measures in both dental practice settings and public areas should be rolled out. The practice should be cleaned and disinfected regularly in accordance with current safety protocols, as should the public areas and appliances, including door handles, chairs, desks and pens. Proper recirculation of reusable instruments and items should be undertaken, with appropriate instrument pre-treatment, cleaning, sterilisation and storage should be done in line with approved practices.

## **2. Patient evaluation**

Screening patients using a standardized structured questionnaire, measuring the patient's body temperature and then taking adequate steps to address the results. It is strongly recommended that a contact-free infra-red forehead thermometer be used.

The following set of screening questions can help identify potential infection. This list is not exhaustive, and should be adapted to suit your needs, in keeping with current research and guidelines:

- a. Do you have a fever or have you experienced a fever within the past 14 days?
- b. Have you experienced a recent onset of respiratory problems, such as a cough or difficulty in breathing, within the past 14 days?
- c. Have you, within the past 14 days, travelled to areas with documented COVID-19 cases?
- d. Have you come into contact with a patient with confirmed COVID-19 infection within the past 14 days?
- e. Have you come into contact with people who had recent fever or respiratory problems within the past 14 days?

- f. Have you recently participated in any gathering, meetings, or had close contact with many unacquainted people?

Following the screening questionnaire:

- If the patient replies yes to any of the screening questions, and the body temperature is below 37.3°C, you can postpone the treatment until 14 days after the exposure event.
- If the patient replies yes to any of the screening questions, and the body temperature is 37.3°C or higher, then the patient should be advised on immediate quarantine, and you should report the case to the infection control department of the hospital or the local health department. The method and place of quarantine should be as per the current guidelines mandated by the government.
- If the patient replies no to all the screening questions, and the body temperature is below 37.3°C, you can treat the patient with extra protection measures and do your best to avoid spatter or aerosol-generating procedures.

If the patient replies no to all the screening questions, but his or her body temperature is 37.3°C or higher, the patient should be directed to the nearest appropriate facility for further medical care.

### **3. Hand Hygiene**

The Board recommends following the **two-before and three-after hand hygiene guidelines for dental professionals**, which is:

- **before** patient examination;
- **before** dental procedures;
- **after** touching the patient;
- **after** touching the surroundings and equipment that have not been disinfected; and
- **after** touching the oral mucosa, damaged skin or a wound, blood, bodily fluid, secretion or saliva etc.

**NOTE:** Everyone should take extra care to avoid touching their own eyes, mouths and noses.

### **4. Personal Protective Measures**

The following protective measures are recommended:

- **Standard protection** in the clinical settings: Disposable working caps, surgical masks and working clothes, protective goggles or face shields, and disposable latex or nitrile gloves.
- **Advanced protection** for dental professionals: Additional disposable isolation clothing or surgical clothes over working clothes in addition to standard protection.
- **Strengthened protection** for being in contact with patients with suspected or confirmed COVID-19.

## 5. Pre-procedural mouth rinse

It is recommended that pre-procedural mouth rinses containing oxidative agents such as 1% hydrogen peroxide or 0.2% povidone-iodine be used for the purpose of reducing the salivary load of oral microbes. It must be noted that chlorhexidine may not be effective at killing the SARS-CoV-2 virus.

## 6. Rubber dam isolation

The use of dental dams can significantly minimise the production of saliva- and blood-contaminated aerosol or spatter, particularly when high-speed handpieces and dental ultrasonic devices are used. The use of a dental dam could reduce airborne particles by 70% within a 1 m radius of the operational field. High-volume evacuators for suction should be used (for aerosol and spatter) during the procedures along with regular suction.

## 7. Handpieces

High-speed dental handpiece with no anti-retraction valves may suck in and expel debris and fluids. Microbes may further contaminate the air and water tubes within the dental unit and thus potentially cause cross-infection as well.

Therefore anti-retraction high-speed dental handpieces which can significantly reduce the backflow of oral bacteria and viruses into the tubes of the dental unit. As a result, it is strongly recommended that dental handpieces without an anti-retraction function should not be used at this time.

## 8. Medical waste

Waste, including disposable PPE, should be regarded as infectious medical waste and should be appropriately and timeously discarded. Proper recirculation of reusable instruments and items should be done, with appropriate instrument pre-treatment, cleaning, sterilisation and storage should be done in line with approved practices. Refer to the Department of Health

Practical Manual for Implementation of the National Infection Prevention and Control Strategic Framework (<http://www.health.gov.za/index.php/component/phocadownload/category/626#>)

## 9. Ventilation

The dental treatment room and other facilities, such as waiting rooms, should be adequately ventilated. Whilst the use of air conditioning is discouraged, but should they be a necessity then approved hospital-quality multi filtration systems (a filtration system that includes a pre filter, true HEPA filter, carbon filter and a UV-C light) should be sourced and regularly changed.

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Whilst the Board acknowledges that none of these precautions can prevent or resolve COVID-19 on their own, all of them can contribute to keeping your dental practice, staff and patients safer and healthier—whether there is an ongoing viral epidemic or not.

### References

1. Centre for Disease control (CDC)  
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COVID-19 Disease: Infection Prevention and Control Guidelines Version 1 - April 2020  
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4. Department of Labour  
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10. Department of Health Practical Manual for Implementation of the National Infection Prevention and Control Strategic Framework  
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