

Considerations for the provision of essential oral health services in the context of COVID-19

Interim guidance
3 August 2020



Introduction

The purpose of this document is to address specific needs and considerations for essential oral health services in the context of COVID-19 in accordance with WHO operational guidance on maintaining essential health services.¹ This interim guidance is intended for public health authorities, chief dental officers at ministries of health and oral health care personnel working in private and public health sectors. The document may be subject to change as new information becomes available.

During the COVID-19 pandemic, effective prevention of oral problems and self-care remain a high priority. Patients should be given advice through remote consultation or social media channels on maintaining good oral hygiene. WHO's general information on oral health is available at (<https://www.who.int/health-topics/oral-health>). Further guidance on environmental cleaning and disinfection is available from WHO² and other institutions.³

Transmission of COVID-19 in oral health care settings

Transmission of SARS-CoV-2, the virus that causes COVID-19, can occur through direct, indirect, or close contact with infected people through infected secretions such as saliva and respiratory secretions or through their respiratory droplets, which are > 5-10 µm in diameter. Droplets <5µm in diameter are referred to as droplet nuclei or aerosols.⁴ To read the most recent information on transmission of the virus, link to Transmission of SARS-CoV-2: implications for infection prevention precautions. (<https://www.who.int/publications/i/item/modes-of-transmission-of-virus-causing-covid-19-implications-for-ipc-precaution-recommendations>).

COVID-19 is transmitted mainly three ways in oral health care settings: 1) direct transmission through inhalation of droplets generated through coughing or sneezing; 2) direct transmission via exposure of mucous membrane such as eye, nasal or oral mucosa to infectious droplets; and 3) indirect transmission via contaminated surfaces.⁵

Aerosol-generating procedures (AGPs) are widely performed worldwide in oral health care settings. AGPs are defined as any medical, dental and patient care procedure that results in the production of airborne particles <5 micrometres (µm) in size (aerosols), which can remain suspended in the air, travel over a distance and may cause infection if they are inhaled.⁶ (See BOX 1- Definition of aerosol generating procedures (AGPs) in oral health care) Clinical procedures that use spray-generating equipment cause aerosolization in the treatment area, leading to rapid contamination of surfaces and potential for the infection to spread.⁷ The risk of airborne

COVID-19 transmission when AGPs are performed can therefore not be excluded.^{8,9}

Oral health care teams work in close proximity to patients' faces for prolonged periods. Their procedures involve face-to-face communication and frequent exposure to saliva, blood, and other body fluids and handling sharp instruments. Consequently, they are at high risk of being infected with SARS-CoV-2 or passing the infection to patients.

Containment of the spread of SARS-CoV-2 in oral health settings

WHO advises that routine non-urgent oral health care – which usually includes oral health check-ups, dental cleanings and preventive care – be delayed until there has been sufficient reduction in COVID-19 transmission rates from community transmission to cluster cases or according to official recommendations at national, sub-national or local level. The same applies to aesthetic dental treatments. However, urgent or emergency oral health care interventions that are vital for preserving a person's oral functioning, managing severe pain or securing quality of life should be provided.

Urgent or emergency oral health care may include interventions that address acute oral infections; swelling; systemic infection; significant or prolonged bleeding; severe pain not controllable with analgesia; oral health care interventions that are medically required as a pre-intervention to other urgent procedures; and dental/orofacial trauma.¹⁰ If an oral health care professional is in doubt, referral to a specialized treatment facility must be ensured.

Timely management of urgent or emergency oral health care interventions helps patients avoid seeking treatment at hospital emergency departments, thereby ensuring that they remain available to serve individuals seeking COVID-19-related care.

Screening and triaging of patients

- If possible, screen patients before their appointments either by virtual/remote technology or telephone. Otherwise triage should be done on arrival to the service or oral health care facility. The aim is to ensure that only patients requiring urgent or emergency receive treatment and that they have no symptoms suggestive of COVID-19 infection or previous risk exposure. It is important to note that not all people infected with SARS-CoV-2 exhibit symptoms, and cases without symptoms can transmit to others.⁴
- Develop, whenever possible, a remote assessment of urgent or emergency oral health care patients by oral

health care personnel based on the “3As”: Advise; Analgesics; Antibiotics (where appropriate).¹¹

- If urgent or emergency oral health care is medically necessary for a patient who has, or is suspected of having, COVID-19, the patient should be referred to specialized oral health care services with appropriate measures in place to separate possible COVID-19 cases from other patients. Where appropriate, urgent or emergency oral health care interventions may also be provided on a home visit by a dedicated oral health care team applying strict infection prevention and control measures as locally prescribed.

Infection prevention and control pre-treatment in oral health care settings

- Staff performing triage on site should maintain physical distancing of at least 1 metre. Ideally a glass or plastic screen should be built to create a barrier between staff performing triage and patients. In places where community transmission is occurring, staff performing triage should wear a medical mask throughout the shift.¹²
- All oral health care personnel should continuously wear a medical mask during their routine activities throughout the entire shift, apart from times when they are eating or drinking. They should change their masks after caring for a patient who requires droplet or contact precautions for other reasons.¹²
- In the context of severe medical mask shortage, face shields may be considered as an alternative. The use of non-medical or cloth masks as an alternative to medical masks is not considered appropriate for protection of health workers based on available evidence.¹³
- Prior to treatment, all oral health care personnel undertaking or assisting in the procedure should perform hand hygiene according to the WHO’s “5 Moments” recommendations,^{14,15} preferably using an alcohol-based (60-80% alcohol) hand rub (ABHR) product if hands are not visibly dirty or soap and water when hands are visibly dirty. Hand should be dried with disposable paper towels.
- Patients should also be requested to practice hand hygiene on arrival and throughout the visit.
- On arrival to the oral health care facility and until the moment of oral health care, patients are encouraged to use medical or non-medical masks.¹²
- Space scheduled appointments to reduce the numbers of patients in the waiting room so that patients can maintain physical distancing of at least 1 metre.¹²
- Patients should be unaccompanied unless they require assistance. Patients and anyone accompanying them should provide their contact details.
- Put up posters and make flyers available around the oral health service and the waiting room to remind staff, patients and accompanying persons to 1) regularly use ABHR or wash their hands and 2) to sneeze or cough into the elbow or use a tissue and dispose of the tissue immediately in a bin, preferably one with a lid.

- Only admit the patient and the staff required to provide care to the treatment area.

Ventilation in oral health care settings

- Adequate ventilation in oral health care facilities reduces the risk of transmission in closed settings. According to the type of ventilation available (mechanical or natural), increase ventilation and airflow (door closed, adequate exhaust ventilation, negative pressure or mechanically ventilated equivalent air exchange capacity in room where possible - an average of 6-12 air exchanges per hour).¹⁶
- Avoid the use of split air conditioning or other types of recirculation devices and consider installation of filtration systems. The following approaches can be considered: installation of exhaust fans; installation of whirlybirds (e.g. whirlygigs, wind turbines) or installation of high-efficiency particulate air (HEPA) filters.¹⁶
- Any modifications to oral health care facility ventilation need to be made carefully, taking into consideration the cost, design, maintenance and potential impact on the airflow in other parts of the facility.

Protection of oral health care personnel and patients during treatment

- De-clutter all work surfaces in the treatment area. Set out only the instruments and other materials that are indispensable for the procedure to be performed.
- Ensure that oral health care personnel undertaking or assisting in the procedure strictly adhere to hand hygiene protocol according to the WHO’s “5 Moments” recommendations.¹⁵
- Ensure that oral health care personnel are trained to use appropriate Personal Protective Equipment (PPE), following a risk assessment and standard precautions: gloves; fluid resistant disposable gown, eye protection (face shield that covers the front and sides of the face or goggles) and a medical mask. A fit tested N95 or FFP2 respirator (or higher) is recommended when AGPs are performed.¹³
- Ensure that all oral health care personnel undertaking or assisting in the procedure are trained and understand how to properly put on, use, and remove PPE to prevent self-contamination.¹⁷
- Ask the patient to rinse mouth with 1% hydrogen peroxide or 0.2% povidone iodine for 20 seconds prior to examination or starting any procedure for the purpose of reducing the salivary load of oral microbes, including SARS-CoV-2.⁵
- In settings with widespread community transmission during the COVID-19 pandemic, an essential oral health service concept¹⁸ is warranted. Oral health care involving AGPs should be avoided or minimized, and minimally invasive procedures using hand instruments should be prioritized.¹⁹ Pre-examination antiseptic mouth rinse is essential, and visual/tactile examination should be performed,

without intraoral x-ray. The following approaches to treatment are recommended:

- Acute pain/swelling/abscess due to oral infection or fractured teeth: local anaesthesia, incision/drainage, antibiotic therapy, pulp devitalization of deep and open carious lesions or direct access in carious broken tooth with hand excavation and dressing, (non-surgical) tooth extraction (treatment adapted to diagnosis)
- Acute pain or bleeding due to acute periodontitis: local anaesthesia, hand scaling and cleaning, antibiotic therapy, antiseptic mouth rinse
- Broken denture: simple intraoral repair (re-lining) or laboratory repair after appropriate disinfection of prosthetic appliance
- Broken orthodontic appliances: removal or fixation of broken orthodontic appliances that hurt/cause irritation
- Extensive dental caries or defective restorations causing pain: manage with non-invasive restorative techniques as appropriate such as Silver-Diamine-Fluoride (SDF) application, or glass-ionomer application
- When AGP cannot be avoided, ensure assistance during procedures (four-handed dentistry), the use of high-speed suction and of a rubber dam, when possible, as well as the use of appropriate PPE – including a fit tested N95 or FFP2 respirator, or higher.⁸
- To further help prevent the possibility of airborne transmission in the presence of AGPs, ensure adequate ventilation in all patient-care areas.^{16,20}
- Avoid the use of the spittoon. It is preferable to instruct the patient to spit into a disposable cup or use high-speed suction.
- Avoid re-call visits by prioritizing single visit procedures.

- Chlorine solutions should be freshly prepared every day. If this is not possible and the chlorine solution must be used for several days, they should be tested daily to ensure that the chlorine concentration is maintained.²
- All patient-care items (dental instruments, devices, and equipment) must be sterilized or otherwise subjected to high-level disinfection according to Spaulding's criteria or the manufacturer's instructions for times and temperatures recommended.^{21,22}
- Staff performing cleaning and disinfection should wear appropriate PPE.
- Discard respirators, surgical masks, gowns and gloves after every patient. Re-usable eye protection and face shields must be cleaned and disinfected prior to re-use. There are no standard or evidence-based methods for reprocessing masks or respirators. Reprocessing should be only considered when there is a critical PPE shortage.¹³
- Manage health care waste following best practices, routine policies and procedures. About 15% of health care waste produced during patient oral health care is regarded as hazardous, can pose health and environmental risks and should be collected safely in clearly marked lined containers and sharp safe boxes.²³

BOX 1:

Definition of aerosol generating procedures (AGPs) in oral health care: All clinical procedures that use spray-generating equipment such as three-way air/water spray, dental cleaning with ultrasonic scaler and polishing; periodontal treatment with ultrasonic scaler; any kind of dental preparation with high or low-speed hand-pieces; direct and indirect restoration and polishing; definitive cementation of crown or bridge; mechanical endodontic treatment; surgical tooth extraction and implant placement.

Cleaning and disinfection procedures in between patients

- Carry out one cycle of standard cleaning and disinfection according to the standard operating procedures (SOP) of the entire treatment area (environmental surfaces) after every patient in the context of COVID-19.²
- Ensure that high touch surfaces such as door handles, chairs, phones and reception desks are regularly cleaned by brushing or scrubbing with a detergent to remove and reduce organic matter before disinfection.
- Many disinfectants are active against enveloped viruses, such as the COVID-19 virus. WHO recommends using:
 - 70% ethyl alcohol to disinfect small surface areas and equipment between uses, such as reusable dedicated equipment or those that do not tolerate chlorine.
 - Sodium hypochlorite at 0.1% (1000 ppm) for disinfecting surfaces and 0.5% (5000 ppm) for disinfection of large blood or bodily fluids spills in health-care facilities.

Additional sources of information

- The General Dental Council, UK. COVID-19 latest information. <https://www.gdc-uk.org/information-standards-guidance/covid-19/covid-19-latest-information>
- Cochrane Oral Health Group. COVID-19 (coronavirus): resources for the oral and dental care team. <https://oralhealth.cochrane.org/news/covid-19-coronavirus-resources-oral-and-dental-care-team>
- Centers for Disease Control and Prevention (CDC). Framework for healthcare systems providing non-COVID-19 clinical care during the COVID-19 pandemic (Updated 30 June 2020). <https://www.cdc.gov/coronavirus/2019-ncov/hcp/framework-non-COVID-care.html>
- Ministry of Health, New Zealand. Guidelines for oral health services at COVID-19 Alert Level 2. <https://www.dcnz.org.nz/assets/Uploads/COVID/Guidelines-at-Alert-Level-2-final.pdf>

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