



## Recommended Practices and Personal Protective Equipment (PPE) for Dentists and Dental Clinics – Interim Guidance 01/09/2020

### Phases 1-2: No evidence of community spread

The following are interim guidelines for the use of PPE in the dental clinic. Given the current epidemiology of COVID-19 in Yukon, it is not recommended to assume and treat each patient as suspect for COVID-19. Rather, each patient encounter should be evaluated based on concern for COVID-19. The presence or absence of symptoms or exposure risks will direct the provider or staff member to the recommended PPE for that particular encounter. Please call and screen your patient 24 hours prior to their appointment, if feasible.

#### [Screening questions](#)

**The presence of symptoms or exposure risks (patient responding “yes” to the screening questions) will indicate the need for augmentation of Routine Practices by use of Additional Precautions. Unless the procedure is urgent or emergent, delay procedure until symptoms have resolved and the patient has been evaluated by a healthcare provider, COVID-19 is ruled out or the self-isolation period is completed.**

#### **What are Routine Practices?**

Routine Practices are the infection prevention and control (IPC) “practices for use in the routine care of all patients at all times in all healthcare settings and are determined by the circumstances of the patient, the environment and the task to be performed.”<sup>1</sup> Central to these Routine Practices is a point-of-care (POC) risk assessment. A POC risk assessment is performed by healthcare workers to determine which IPC measures are appropriate to assure safe patient care, given the symptoms of the patient and the intended interaction, and to protect the healthcare worker from exposure to infection (such as exposure to body fluids, respiratory secretions, sharps, etc).

Routine practices include, but are not limited to:

- Point-of-care risk assessment
- Hand hygiene (either soap and water or an alcohol-based hand sanitizer)
- Aseptic technique
- Patient placement and flow
- Appropriate use of PPE
- Management and cleaning of the patient care environment

<sup>1</sup> “Routine practices and additional precautions for preventing the transmission of infection in healthcare settings.” 5 September 2017. <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/routine-practices-precautions-healthcare-associated-infections/part-a.html> Accessed 15 April 2020.

The continuation of basic public health measures shown to reduce the risk of transmission and acquisition of COVID-19 is imperative to all interactions:

- Physical/social distancing
- Hand hygiene
- Respiratory etiquette

Additional measures can be put in place to help to create a safer environment for the patient and staff. Such environmental measures and visual cues include:

- Considering having all staff wear scrubs while at work
- Visual cues and signage at doors encouraging patients to call ahead if symptomatic
- Visual cues and signage re-enforcing good hand hygiene practices and respiratory etiquette
- Plexiglass barrier for administrative staff, screeners
- Duct tape on the floor or other visual cue indicating appropriate spacing between patients
- Remove unnecessary items from the waiting room, such as papers and magazines
- Staggering scheduled appointments in order to maximize capacity for physical distancing in the health center
- Limit the number of patients in your clinic and encourage patients to come alone, unless they require the presence of a parent or caregiver
- If performing an aerosol generating procedure (AGP) in a patient with the presence of risk factors, assure that procedure is performed in a closed room
- Ensure that the clinical space is thoroughly cleaned and disinfected between each patient and that high touch surfaces (doorknobs, light switches, arm rests on chairs, etc.) are cleaned at least twice a day.

The table on the next two pages indicates the appropriate PPE for patient care based on target personnel and activity.

If the patient screens “no” to the screening questions (absence of symptoms and exposure risks), continue Routine Practices relevant for the intended interaction.

For those who screen “yes” to the screening questions (presence of symptoms and/or exposure risks) or are COVID-19 positive, it is recommended to delay non-urgent treatment until the patient no longer exhibits risk factors (illness or self-isolation requirement) or is no longer infectious.

For those who exhibit risk factors for COVID-19 or are COVID-19 positive and require urgent treatment that cannot be delayed, consider treating in the hospital setting if your clinic does not have appropriate PPE and/or measures to safely treat patients.

#### Emergent, urgent and non-urgent care<sup>1</sup>

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<sup>1</sup> Alberta Dental Association and College. “Guidelines for Stage 2: Alberta Relaunch for Dental Practice.” 12 June 2020. [https://www.dentalhealthalberta.ca/wp-content/uploads/2020/05/Expectations-and-Pathway-for-Patient-Care-during-the-COVID-19-Pandemic\\_6.11.2020.pdf](https://www.dentalhealthalberta.ca/wp-content/uploads/2020/05/Expectations-and-Pathway-for-Patient-Care-during-the-COVID-19-Pandemic_6.11.2020.pdf) Accessed 26 June 2020

## EMERGENCY DENTAL PROCEDURES

Emergency dental treatment includes treatment of oral-facial trauma, significant infection, prolonged bleeding, pain, which cannot be managed by over the counter medications, or management of known/high risk malignancy.

## URGENT DENTAL PROCEDURES

Urgent dental care focuses on the management of conditions that require immediate attention to relieve pain and if left untreated may significantly compromise patient dental health, such as:

- Severe dental pain from pulpal inflammation
- Pericoronitis or third-molar pain
- Surgical post-operative osteitis, dry socket dressing changes
- Abscess, or localized bacterial infection resulting in localized pain and swelling
- Tooth fracture resulting in pain or causing soft tissue trauma
- Dental trauma with avulsion/luxation
- Dental treatment required prior to critical medical procedures
- Final crown/bridge cementation

Other urgent dental care:

- Active sleep apnea management
- Extensive dental caries or defective restorations causing pain or that can lead to pain
- Suture removal
- Denture adjustment on radiation/oncology patients
- Denture adjustments or repairs when function impeded
- Replacing temporary filling on endo access openings in patients experiencing pain or an endodontically treated tooth with a high fracture potential
- Pre-surgical clearance for medical procedures
- Managing active orthodontic cases

Please note, where there is low prevalence and incidence of COVID-19, additional PPE over and above that required for normal precautions is not required. The use of goggles/face shield, gloves, gowns and an N95 mask are only required for AGPs on patients with the presence of symptoms and/or exposure risks for COVID-19.

Appropriate practices and PPE for patient care for dental clinics, based on target personnel and activity.

Key:

Patients

All staff

Environmental Services

| Target space              | Target personnel  | Activity/Interaction  | Recommended practices  |
|---------------------------|---|---|--|
| Screening/<br>triage area | Staff   | Screening or greeting a patient, not involving direct contact | <ul style="list-style-type: none"> <li>Maintain at least 2 metres separation or</li> <li>Behind plexiglass</li> </ul>  |
|                           | Patient responds <b>YES</b> to any of the screening questions   | Being screened  | <ul style="list-style-type: none"> <li>Hand hygiene</li> <li>Surgical/procedural mask</li> <li>Give tissues for respiratory hygiene and provide for safe disposal</li> <li>Maintain at least 2 metres distance</li> <li>Assure safe disposal of used tissues</li> </ul>  |
|                           | Patient responds <b>NO</b> to any of the screening questions    | Being screened  | <ul style="list-style-type: none"> <li>Hand hygiene</li> <li>Maintain at least 2 metres distance</li> </ul>  |
| Office space              | Staff   | Tasks that do not involve patient contact                     | <ul style="list-style-type: none"> <li>Maintain at least 2 metres separation</li> <li>Regular practices of respiratory etiquette and hand hygiene</li> </ul>   |
| Waiting room              | Patient responds <b>YES</b> to any of the screening questions * | Waiting for dental evaluation                                 | <ul style="list-style-type: none"> <li>Hand hygiene</li> <li>Surgical/procedural mask</li> <li>Respiratory etiquette</li> <li>Give tissues and provide for safe disposal</li> <li>If possible, isolate in room or in a designated area. If not feasible, maintain at least 2 metres from other patients</li> </ul> |
|                           | Patient responds <b>NO</b> to any of the screening questions    | Waiting for dental evaluation                                 | <ul style="list-style-type: none"> <li>Hand hygiene</li> <li>Maintain at least 2 metres between other patients</li> </ul>  |

\*Patients with responding "yes" and with symptoms of COVID-19 are encouraged to use the self-assessment test online, call 811, call the Respiratory Assessment Centre (867-393-3083) or contact their medical provider for further evaluation. Those in the community with symptoms of COVID-19 are encouraged to call the community health centre for special arrangements.

|           |   |   |  |
|-----------|---|---|--|
| Operatory | Dental providers  | Performing a dental examination or non-AGP procedure on a patient who responds <b>NO</b> to screening questions             | <ul style="list-style-type: none"> <li>• Hand hygiene</li> <li>• Droplet and contact precautions: <ul style="list-style-type: none"> <li>• Level 2 or 3 surgical/procedural mask</li> <li>• Lab coat with cuffed sleeves and high neck fastening or gown (gown preferred)</li> <li>• Gloves</li> <li>• Goggles or face shield</li> </ul> </li> </ul>   |
|           | Dental providers  | Performing an AGP on a patient who responds <b>YES</b> to screening questions <sup>2</sup>                                  | <ul style="list-style-type: none"> <li>• Hand hygiene</li> <li>• Airborne + droplet/contact precautions: <ul style="list-style-type: none"> <li>• N95 mask</li> <li>• Gown</li> <li>• Gloves</li> <li>• Goggles or face shield</li> <li>• Cap/bouffant</li> <li>• Allow for sufficient air changes before next patient</li> <li>• Preferable to do AGPs on patients with risk factors at end of day to ensure sufficient air changes.</li> </ul> </li> </ul> |
|           | Dental providers  | Performing a dental examination or procedure (including AGP) on a patient who responds <b>NO</b> to the screening questions | <ul style="list-style-type: none"> <li>• Hand hygiene</li> <li>• Droplet and contact precautions: <ul style="list-style-type: none"> <li>• Level 2 or 3 surgical/procedural mask</li> <li>• Lab coat with cuffed sleeves and high neck fastening or gown (gown preferred)</li> <li>• Gloves</li> <li>• Goggles or face shield</li> </ul> </li> </ul>   |
|           | Patient responds <b>YES</b> to any of the screening questions | Undergoing urgent or emergent dental evaluation   | <ul style="list-style-type: none"> <li>• Hand hygiene</li> <li>• Surgical/procedural mask</li> <li>• Respiratory etiquette, provide tissues and place for safe disposal</li> </ul>   |
|           | Patient responds <b>NO</b> to any of the screening questions  | Undergoing dental evaluation  | <ul style="list-style-type: none"> <li>• Hand hygiene</li> </ul>   |

|                        |                        |   |  |
|------------------------|------------------------|---|--|
| All patient care areas | Environmental services | Cleaning and decontamination of patient care areas, office areas, staff areas and waiting rooms | <ul style="list-style-type: none"> <li>• Routine cleaning between each patient, any equipment shared between patients must be cleaned and disinfected or sterilized as per ADA&amp;C IPC Standards. Office environment, staff areas and waiting room should be cleaned frequently throughout the day and at least twice a day**</li> </ul> |
|------------------------|------------------------|---|--|

\*\*Additional information on appropriate cleaning practices in the medical offices can be found here: <https://yukon.ca/en/health-and-wellness/health-concerns-diseases-and-conditions/find-information-health-professionals>

<sup>2</sup>AGP – Dental devices and procedures known to produce airborne contamination

| Device and/or procedure                             | Contamination   |
|---|---|
| <b>Ultrasonic and sonic scalers</b>                 | Considered the greatest source of aerosol contamination; use of a high-volume evacuator will reduce the airborne contamination by more than 95%                         |
| <b>Air polishing</b>                                | Bacterial counts indicate that airborne contamination is nearly equal to that of ultra-sonic scalers; available HVE will reduce airborne contamination by more than 95% |
| <b>Air-water syringe</b>                            | Bacterial counts indicate that airborne contamination is nearly equal to that of ultra-sonic scalers; high-volume evacuator will reduce airborne bacteria by nearly 99% |
| <b>Tooth preparation with air turbine handpiece</b> | Minimize airborne contamination with rubber dam or other isolation types and HVE  |
| <b>Tooth preparation with air abrasion</b>          | Bacterial and viral contamination is unknown; extensive contamination with abrasive particles has been shown  |

From: Harrel SK, Molinari J. Aerosols and splatter in dentistry: a brief review of the literature and infection control implications. J Am Dent Assoc. 2004;135:429-437.

## Environmental Changes to Support a Safe Working Environment

Many dental procedures create splashes and splatters in addition to the risk of aerosol generation (aerosol-generating procedure – AGP). These factors can make infection control particularly challenging in this setting. Splatters and splashes are larger droplets and particles and tend to fall quickly. In contrast, aerosols are tiny droplets or particles that can remain in air for a longer period. Eventually, these tiny droplets will settle or be cleared from the air. The time of setting or clearance depends on the ventilation of the office.

Dentists are encouraged to avoid AGPs on patients with COVID-19 or the presence of risk factors for COVID-19 (answering “yes” to the screening questions) whenever possible. However, this may not be the best approach for all patients. To further mitigate the risk AGPs may pose to the dentist and staff, the clinics can prepare an environment that prioritizes safety and best reduces the risk of infection. This is in addition to the proper selection and use of PPE, as previously explained.

- In rooms where you anticipate performing an AGP, minimize the contents of all operatories. This includes any unnecessary equipment, supplies and wall hangings.
- AGPs should be performed only in rooms that are capable of containing the aerosol: floor-to-ceiling walls, closed door (or other barrier that can be cleaned and disinfected).

Following an AGP on a patient with COVID-19 or responding **YES** to the screening questions, one must allow time to permit the clearance and settling of aerosols. During this period, the room should be left empty (fallow time). The length of time a room should be left empty (with the door closed) is determined by the air changes per hour (ACH). The aim is to achieve 99.9% removal of airborne contaminants, see table below.

**Air changes per hour (ACH) and time required for airborne-contaminant removal by efficiency<sup>2</sup>**

| ACH             | Time (minutes) required for removal 99% efficiency | Time (minutes) required for removal 99.9% efficiency |
|-----------------|--|--|
| 2               | 138  | 207  |
| 4               | 69   | 104  |
| 6 <sup>#</sup>  | 46   | 69   |
| 8               | 35   | 52   |
| 10 <sup>#</sup> | 28   | 41   |
| 12 <sup>#</sup> | 23   | 35   |
| 15 <sup>#</sup> | 18   | 28   |
| 20              | 14   | 21   |
| 50              | 6  | 8  |

<sup>#</sup>denotes frequently cited ACH for patient-care areas.

Dentists should consult an HVAC professional to assess the existing HVAC system and calculate the actual ACH for the dental practice. Dentists may use the actual ACH to calculate a fallow time using Table 2.

- Dentists should retain copies of any documentation supporting the HVAC assessment and any need for engineering controls.

Options to improve ACH (and further reduce the fallow time) may be explored, including:

- Consulting an HVAC professional to determine whether changes to the existing HVAC system are possible to improve ACH for the dental practice.
- If changes to the existing HVAC system are not possible or adequate, dentists may consider the use of an in-operatory air cleaner (e.g. HEPA filtration) to increase the effective air changes per hour (eACH) for a specific operatory.
- If an in-operatory air cleaner (e.g. HEPA filtration) will be used to increase the effective air changes per hour (eACH) for a specific operatory, the HVAC professional must also take into account several additional factors, including:
  - any structural changes that may be necessary to contain the spread of aerosols (e.g., the addition of floor to ceiling walls or barriers),
  - the type of unit being considered (e.g. fixed versus portable)

<sup>2</sup> United States Centers for Diseases Control and Prevention (CDC). Infection Control: guidelines for environmental infection control in health-care facilities (2003). Table B.1 Air changes/hour (ACH) and time required for airborne-contaminant removal by efficiency. Accessed 29 May 2020.

<https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html#tableb1>

- the cubic feet of the operatory and airflow rate of the unit, and
- the optimal placement and operation of the unit.<sup>3</sup>

Please note, if the rate of air changes for the office has not been confirmed by an HVAC professional, dentists should assume a rate of 2 air changes per hour and adhere to a minimum fallow time of 3 hours following the AGP<sup>2</sup> on a patient with respiratory symptoms and/or presence of risk factors for COVID-19.

The HVAC considerations are standard and need to either be followed by the ACH fallow time chart, or schedule the patient with respiratory symptoms and/or presence of risk factors for COVID-19 as the last visit of the day or referred to another operatory with appropriate physical barriers and HVAC.

Following AGPs, cleaning and disinfection of the room must only be performed after the necessary fallow period has been completed. Dentists are to ensure the room are cleaned and disinfected prior to treating a new patient.

Additional considerations for your clinical area

- Sterilization room to be cleaned regularly
- Follow the Alberta Dental Association and College's IPC regulations and manufacturers' instructions for testing sterilizers after a prolonged time out of service
- Shock your dental unit water lines if you are returning from an extended break in practice. Consult the manufacturers' instructions for proper product recommendations.
- Only patients and necessary attendants allowed in clinical areas.

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<sup>3</sup> Royal College of Dental Surgeons of Ontario. "COVID-19: managing infection risks during in-person dental care." 31 May 2020. Accessed 26 June 2020.  
[https://az184419.vo.msecnd.net/rcdso/pdf/standards-of-practice/RCDSO\\_COVID19\\_Managing\\_In\\_Person\\_Care.pdf](https://az184419.vo.msecnd.net/rcdso/pdf/standards-of-practice/RCDSO_COVID19_Managing_In_Person_Care.pdf)