



ASSOCIATION OF ALBERTA DENTAL ASSISTANTS



From comments the AADA has received from RDAs across Alberta over the past few weeks, it is clear to the AADA Board of Directors that there are equally those who are ready and willing to return to work in their dental practices under the current guidelines from ADA&C as well as those who are still very anxious about opening up dental practices to provide services to asymptomatic patients and without air purification devices at minimum for AGPs as well as without N95 or higher level masks to protect them and their families from workplace acquired illness.

While we appreciate that dental employers are concerned about the financial ramifications of limiting services and maintaining reduced patient load, the AADA holds the health and safety of our members ahead of any moves towards providing more than emergency dental services to our patients during the COVID-19 pandemic.

The AADA supports the COVID-19 Return to Work Guidelines for Dental Hygienists as also appropriate for Registered Dental Assistants who are also at high risk for exposure to COVID-19 due to the procedures they provide within their scope of practice and assist in providing along with their dentist. <https://www.crdha.ca/media/249886/covid-19-return-to-work-guidelines-may-4-2020.pdf>

KEY POINTS on Return to Work for AADA members:

1) Contact your employer and discussing a return-to-work plan with them. Discuss the new strategies and protocols to be implemented and the reasons behind them.

2) Practice the following procedures with all staff before welcoming patients. This should include:

1. consideration of client flow into and through the practice

2. timing for operatory usage and sterilization

3. masking for staff who are not providing direct patient care. Refer to “AHS Continuous Masking”

<https://www.albertahealthservices.ca/assets/info/ppih/if-ppih-covid-19-ppe-continuous-use-guidance-masking.pdf> and “AH Help Prevent the Spread” <https://www.alberta.ca/prevent-the-spread.aspx>

4. staff training in the enhanced PPE requirements including donning and doffing

3) Identify staff that require N95 *or higher* masks (all clinical staff) and have them fitted and trained in appropriate use. (1)

4) Allow no less than 30 minutes for aerosol settling and more time for proper operatory disinfection and barrier placement, donning and doffing PPE, and patient entry and release. Viruses are much smaller than bacteria and will remain airborne for a longer period of time. (5) The “settle time” is the amount of time needed to remove infectious airborne organisms from room air or infectious aerosols that may be created during an AGMP. This begins when the source of infectious aerosols ends. (6)

5) While the COVID-19 directives are in place, for the treatment of asymptomatic clients who have been appropriately screened, if appropriate PPE is not available, oral health services should NOT be performed.

6) If emergency dental care is medically necessary for a client who has, or is suspected of having COVID-19, dental treatment should be provided in a hospital or other facility that can treat the patient using the appropriate airborne precautions such as use of a negative pressure room. These patients should not be seen in a community setting.

7) Dental Assistants are at high risk for exposure to COVID-19 due to the procedures they provide within their scope of practice and assist in providing along with their dentist, therefore, it is extremely important that they protect themselves using the highest level of PPE available. (1)

SARS-CoV2 is the new coronavirus that causes the disease COVID-19

Four of the seven known coronaviruses in humans most frequently cause symptoms of the common cold. Rarely, severe lower respiratory tract infections, including pneumonia, can occur, primarily in infants, older people, and the immunocompromised. Three of the seven coronaviruses cause much more severe, and sometimes fatal, respiratory infections in humans than other coronaviruses and have caused major outbreaks of deadly pneumonia in the 21st century: SARS-CoV2, MERS-CoV and SARS-CoV. (2)

Researchers are still learning how readily this virus spreads from person to person or how sustainable infection will be in a population, although it appears more transmissible than SARS-CoV and spread is probably more similar to that of influenza. Asymptomatic and pre-symptomatic patients can transmit the virus.

Super-spreaders played an extraordinary role in driving the 2003 SARS outbreak and may also play a significant role in the current COVID-19 outbreak and estimates of transmissibility. A super-spreader is an individual who transmits an infection to a significantly greater number of other people than the average infected person. Persons with minimal or no symptoms may also be able to transmit disease, making it difficult to control the outbreak. (2)

Although COVID-19 is not thought to be an airborne disease, such as measles or tuberculosis, under certain circumstances the virus can be aerosolized into particles much smaller than respiratory droplets (< 5 µm), allowing them to remain suspended in the air longer, to travel farther, and to be inhaled by a person, thus acting like an airborne disease. (1)

The emerging science is indicating that:

- COVID-19 is “stickier” than previously seen viruses – infection is easier
- COVID-19 can cause serious symptoms in persons over 60, and those with underlying medical conditions
 - COVID-19 may be spread through the airborne route, meaning that tiny droplets remaining in the air could cause disease in others even after the ill person is no longer near
 - COVID-19 may be spread through aerosols produced by high and low speed handpieces, ultrasonic scalers, air/water syringes, or an infected client coughing, and even when taking intraoral radiographs

- Individuals infected with COVID-19 may be shedding virus and communicating the disease even before they show symptoms, including transmission through saliva up to 48 hours prior to showing symptoms

- Patients may be asymptomatic and infectious

- COVID-19 survives on environmental surfaces, including metal and plastic surface, for various periods of time as found in the dental office. (1)

The consensus has been that the greatest airborne infection threat in dentistry comes from aerosols (particles less than 50 µm in diameter) due to their ability to stay airborne and potential to enter respiratory passages. The smaller particles of an aerosol have the potential to penetrate and lodge in the smaller passages of the lungs and are thought to carry the greatest potential for transmitting infections. Thus, splatter droplets also may be a potential source of infection in a dental treatment setting. Splatter and droplet nuclei also have been implicated in the transmission of diseases other than TB, such as SARS, measles and herpetic viruses. (7)

Aerosol particles bearing COVID-19 can be generated during medical and dental procedures when a client's saliva and nasopharyngeal fluids collect in the oral cavity and is agitated by mechanical forces, such as: Air-water syringe, Ultrasonic/power instrumentation, Slow-speed and high speed handpieces, Air polishing, Laser (soft and hard tissues) and Nitrous Oxide.

COVID-19 could be transmitted through any other dental procedures that are known to generate aerosols and spatter, such as: Polishing / prophylaxis, Pit and fissure sealants, Whitening, Intra-oral radiographs, and Impressions. (1) (7)

The risk of aerosol transmission is best reduced by avoiding AGPs in the first place; by utilizing procedure appropriate PPE, and implementing appropriate aerosol protective measures.

It must be emphasized that no single approach or device can minimize the risk of infection to dental personnel and other patients completely. A single step will reduce the risk of infection by a certain percentage; another step added to the first step will reduce the remaining risk, until such time as the risk is minimal. This can be described as a layering of protective procedures. This layering of infection control steps needs to be followed in reducing the potential danger from dental aerosols. (7)

Two methods are available to reduce airborne contamination arising from the operative site. One method involves using devices that remove the contaminated material from the air of the treatment area after it has become airborne. The other is to remove the airborne contamination before it leaves the immediate area surrounding the operative site. The most frequently mentioned methods of removing airborne contamination from the air of the treatment room are the use of a high efficiency particulate air, or HEPA, filter and the use of ultraviolet, or UV, chambers in the ventilation system. (7)

The Centers for Disease Control acknowledges that when practicing in the absence of airborne precautions, the risk of SARS-CoV-2 transmission during aerosol generating dental procedures cannot be eliminated. (4) At the very least the AADA would want to see Air Filtration Devices be used in each operatory when there is no option for patient treatment other than an AGP during the pandemic.

It is important to know:

1. Workers have the right to refuse dangerous work and are protected from reprisal for exercising this right:
2. workers must continue to be paid while a work refusal is being investigated
3. employers must ensure workers understand the hazards at the workplace, know what needs to be reported and have the support to exercise their right
4. employers must investigate the matter in cooperation with the joint work site health and safety committee or health and safety representative, if applicable
5. employers cannot take or threaten discriminatory action against a worker for exercising their rights and duties under the legislation
6. other workers may be assigned to the work if they are advised of the refusal, reason for it and are made aware of their own right to refuse work after the employer determines there is not a risk
7. work involving health and safety hazards that are not normal for the job is considered as dangerous condition that could trigger a work refusal.

For information on how to address dangerous work go to: <https://www.alberta.ca/refuse-dangerous-work.aspx> (3)

The Association of Alberta Dental Assistants AADA will provide our members with more information on air filtration technology and/or changes to existing office designs once sufficient evidence becomes available. Until then, we concur with the College of Registered Dental Hygienists of Alberta CRDHA's position that aerosol producing procedures not be permitted during the COVID-19 epidemic in order to ensure the safety of both patients and oral health professionals.

The College of Alberta Dental Assistants CADA has indicated on their website that they will continue to work with the other Alberta oral health regulators to develop informative and safe return to work guidelines for when the Alberta Relaunch Strategy permits the provision of non-urgent dental services. (8)

References

(1) CRDHA COVID-19 Return to Work Guidelines for Dental Hygienists May 4, 2020
<https://www.crdha.ca/media/249886/covid-19-return-to-work-guidelines-may-4-2020.pdf>

(2) MERCK MANUAL Professional Version Coronaviruses and Acute Respiratory Syndromes (COVID-19, MERS, and SARS) April 2020 Brenda L. Tesini, MD, University of Rochester School of Medicine and Dentistry
<https://www.merckmanuals.com/en-ca/professional/infectious-diseases/respiratory-viruses/coronaviruses-and-acute-respiratory-syndromes-covid-19,-mers,-and-sars>

(3) 2020 Government of Alberta <https://www.alberta.ca/refuse-dangerous-work.aspx>

(4) Centers for Disease Control and Prevention > Coronavirus Disease 2019 COVID-19 > Healthcare Professionals Dental Settings: Interim Infection Prevention and Control Guidance for Dental Settings During the COVID-19 Response <https://www.cdc.gov/coronavirus/2019-ncov/hcp/dental-settings.html>

(5) Microbial aerosols in general dental practice. Bennett,A., Fulford, M., Walker, J. et al. https://www.nature.com/articles/4800859?fbclid=IwAR06bmi_0pujDExnUAKcc-CX3gwPSDDellrrqTVvzOy9_-ZQa4bam-0TVmo

(6) SK Health Authority April 23, 2020 Settle time after an AGMP College of Dental Surgeons of SK Saskatchewan.ca/covid19-providers https://saskdentists.com/images/pdf/temp_files/Alerts_Memos/PPE-Rapid-Update-AGMP-Settle-Time-FINAL.pdf

(7) JADA Vol 135 April 2004 Aerosols and splatter in dentistry Stephen K. Harrel DDS John Molinari PhD [https://jada.ada.org/article/S0002-8177\(14\)61227-7/pdf](https://jada.ada.org/article/S0002-8177(14)61227-7/pdf)

(8) College of Alberta Dental Assistants Return to Non-essential Work Guidelines effective May 11, 2020 <https://abrda.ca/wp-content/uploads/2020/05/Return-to-Non-essential-Practice-Guidelines.pdf>

The Association of Alberta Dental Assistants strongly recommends that the ADA&C put the health and safety of dental staff ahead of practice finances until we can ensure that the COVID-19 virus cannot be transmitted through aerosol generating procedures in a dental office or that validated evidence dictates the type of airborne precautions that will protect staff and patients from this disease.