Interim Infection Prevention Control (IPC) Guidance on Returning to Dental Hygiene Practice During Manitoba's Phase Two of Restoring Safe Services

Effective June 1st, 2020

All CDHM registrants are required to review this document prior to returning to practice

Approved by the College of Dental Hygienists of Manitoba Council
May 26, 2020

Guidelines are Subject to Change

Returning to practice is an individual decision using professional judgement and should include consultation with your dental team

These Guidelines apply only to the treatment of asymptomatic patients who have been appropriately screened

If appropriate Personal Protective Equipment (PPE) is unavailable, dental hygiene services must not be performed

Please note, because COVID-19 is a rapidly evolving health issue, these Guidelines may change based on new research

Introduction

As licensed primary health care providers, dental hygienists have a responsibility to uphold the highest standards of practice to ensure the health and safety of the individuals they serve and the colleagues with whom they interact. The COVID-19 pandemic has resulted in considerable burdens being placed on human health. The main goal of the public health response has been to minimize the negative health impacts of the pandemic (i.e. the number of hospitalizations and deaths). Dental hygienists have a role to play in minimizing the impact of the pandemic in Manitoba. This goal may be achieved by using professional judgement and ethical decision-making in determining the appropriateness of returning to work, effective practice management, and the prudent and responsible stewardship of PPE resources.
https://www.gov.ie/en/publication/dbf3fb-ethical-framework-for-decision-making-in-a-pandemic/
https://www.adha.org/resources-docs/ADHA_TaskForceReport.pdf
The information that follows is a general guide to current adjustments to the practice of dental hygiene based on current knowledge of the COVID-19 pandemic. Modifications to practice may change depending on the outbreak level in your community/region. Since outbreaks can be localized, the modifications might be quite different from one community to the next. Changes identified by Public Health officials may influence best practice in your region.

Rationale for these Guidelines

This document is a methodical, responsible approach to returning to dental hygiene practice. These Guidelines provide evidence-based information on how to reduce risk for transmission of the novel coronavirus in dental hygiene practice. The current level of evidence available at the time of writing (May 26, 2020), suggests that complete elimination of risk is not possible. By implementing the risk mitigation strategies listed in the document, dental hygienists can reduce the impact of the known risks in their practice in order to protect themselves and their patients from infection. If the COVID-19 risk mitigation IPC precautions change, the CDHM will modify this document as new information is considered. This protocol respects the safety and well-being of patients, dental hygienists, and their colleagues.

Objective

To provide guidance, based on best practice, to dental hygienists as they return to providing dental hygiene services during Phase Two of Restoring Services in accordance with Manitoba Health and Shared Health. Optimum safety for dental hygienists, patients, colleagues, families, and communities is our primary consideration.

Registrant Responsibilities

- Ensure this 'Return to Work' document is printed and available onsite at your place of work (if you are unable to print, contact the College office and we will send you a printed copy).
- Ensure you are familiar with and understand the Guidance document when you are ready to return to work.
- Confirm there is approved, adequate, sustainable PPE in stock from a reputable supplier.
- Continue to adhere to measures outlined by the Chief Medical Health Officer (CMHO) to promote physical distancing where possible, and where not, use appropriate PPE.
- Continue to abide by the Dental Hygienists Act and CDHM Bylaws , and all additional CDHM Guiding Documents relating to the COVID-19 pandemic.

Characteristics of COVID-19

COVID-19 is an infectious disease caused by a new coronavirus called SARS- CoV-2. ***This virus requires contact and enhanced droplet precautions.*** 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. ***Aerosol Generating Procedures (AGPs) present the biggest risk in dental procedures. The risk of aerosol transmission can be reduced by avoiding the production of aerosols, by utilizing appropriate PPE, and implementing appropriate aerosol protective measures.***

The *emerging* science is indicating that:

- COVID-19 is "stickier" than previously seen viruses – infection is easier.
- COVID-19 causes serious symptoms in persons over 60, and those with underlying medical conditions.
- COVID-19 is spread through droplet and contact, and studies suggest that COVID -19 may be spread through aerosols performed during certain procedures.
- COVID-19 may be spread through aerosols produced by high speed handpieces, ultrasonic scalers, air/water syringes, among others[1,2]
- COVID-19 exists in saliva in 3 ways in oral cavity: from salivary glands, in blood stream via crevicular fluid and via upper and lower respiratory tract.[3,4]

[1]Harrel, S. K., & Molinari, J. (2004). Aerosols and splatter in dentistry: a brief review of the literature and infection control implications. *The Journal of the American Dental Association*, *135*(4), 429-437

[2]Peng, X., Xu, X., Li, Y., Cheng, L., Zhou, X., & Ren, B. (2020). Transmission routes of 2019-nCoV and controls in dental practice. *International Journal of Oral Science*, *12*(1), 1-6.

[3]Fini, M.B. What dentistry need to know about Covid-19. (June 2020). Oral oncology 105: 1

[4]To, K. K. W., Tsang, O. T. Y., Yip, C. C. Y., Chan, K. H., Wu, T. C., Chan, J. M. C., ... & Lung, D. C. (2020). Consistent detection of 2019 novel coronavirus in saliva. *Clinical Infectious Diseases*.

Returning to Work

After review of available research related to COVID-19 and the risks specific to dental hygiene practice, the CDHM Council has determined, effective June 1, 2020, as part of Manitoba's Phase Two of Restoring Services, dental hygienists may resume providing non-essential health services to the public following these Guidelines. The CDHM Council's strategy for returning to routine dental hygiene practice is designed to respect the safety and well-being of both the patients and the dental hygienist.

Aerosol Generating Procedures

- **During the COVID-19 pandemic, procedures causing aerosol production will be permitted *only if the demonstrated health benefits of providing the treatment outweighs the risk of infection to the patient* and the procedure cannot be achieved by any other method of treatment.**
- **Given that patients may be able to spread the virus while pre-symptomatic or asymptomatic. It should be assumed that all patients can transmit the disease.**

It is unlikely, during the current COVID-19 pandemic, there would be many instances where the health benefits of using ultrasonic instrumentation would outweigh the risk of aerosol generation.

For example, not often would there be a health benefit, based on the known risk of aerosols, to the use of an ultrasonic scaler on a 25-year-old patient with a clean mouth with no periodontal involvement. If periodontal treatment is required around a tooth with 7mm pocketing and furcation involvement, the use of ultrasonics could be a consideration, if the health benefits to performing the procedure cannot be achieved by any other method of treatment.

Procedures at High Risk for Aerosol Generation	Required Risk Mitigation
Ultrasonic/power instrumentation	There must be demonstrated health benefits to providing this procedure that outweighs the risk of transmission of COVID-19 that cannot be achieved by any other method of treatment. See page 6 for necessary PPE for aerosol generating procedures (AGP's).
Air Polishing	There must be demonstrated health benefits to performing this procedure that cannot be achieved by any other method of treatment.

The CDHM recognizes that most procedures performed by dental hygienists could produce some level of aerosols. The following procedures have the potential to produce aerosols and should be avoided or limited. Use your professional judgement to determine if the health benefit to the patient outweighs the risk of introducing aerosols into the environment for you, other patients, and colleagues in the office.
Source: https://journals.sagepub.com/doi/abs/10.1177/1757177409106456

If the following procedures listed below are necessary to patient care, minimize the time spent on the procedures. ***Whenever possible use High Volume Evacuation (HVE) during any procedure***

Procedures at Potential Risk for Aerosol Generation	**Required Risk Mitigation**
Intra-oral radiographs	Use extra-oral radiographs if possible Assess patient for risk of gag response Employ strategies to avoid coughing and vomiting
Impressions	Assess patient for risk of gag reflex Defer treatment if possible Employ strategies to avoid coughing and vomiting
Air-Water Syringe	**Do not use air & water together**
Polishing (selective)[5,6] ***If choosing to selective polish, ensure there is a health benefit for the patient***	Avoid full-mouth polishing **Must use HVE** to control droplets, splatter and potential aerosols Use slow-speed handpiece only Use water only from air/water syringe when rinsing

[5] Madan, C., Bains, R., & Bains, V. (2009). Tooth polishing: Relevance in present day periodontal practice. *Journal of Indian Society Periodontology*, *13*(1), 58.

[6] Sawai, M. A., Bhardwaj, A., Jafri, Z., Sultan, N., & Daing, A. (2015). Tooth polishing: The current status. *Journal of Indian Society of Periodontology*, *19*(4), 375.

Note: *Although no adverse health effects associated with the saliva ejector have been reported, dental health care personnel (DHCP) should be aware that backflow could occur when they use a saliva ejector. DHCP should not advise patients to close their lips tightly around the tip of the saliva ejector to evacuate oral fluids.*
Source: https://www.cdc.gov/oralhealth/infectioncontrol/faqs/saliva.html

Pre-Appointment Screening

Hygienist

Your ability to work safely should be determined on a daily basis. Dental hygienists with symptoms for COVID-19 should refer to Shared Health guidelines for staff and pursue testing. Dental hygienists should review the Shared Health Memo for screening and complete the Shared Health COVID-19 Screening Tool. Daily fitness to work screening question results should be recorded in a personal logbook. The logbook should be kept by each registrant and be made available to Public Health authorities if requested.

Patient

- Client telephone pre-screening using the Shared Health Screening Tool ensures that only asymptomatic patients are being seen
- Re-screen patients upon arrival for appointment using the Shared Health Screening Tool
- Patients identified through screening as COVID-19 positive or COVID-19 suspect patients are not to be seen in community dental practice settings. These individuals should be referred to Health Links-Info Sante for triage.
- Patients who present with a temperature of 38C or greater should be asked to immediately don a mask and be sent home to contact Health Links-Info Sante for triage.

Personal Protective Equipment (PPE)

Non-aerosol Generating Procedures

- ASTM Level 3 mask
- Face Shield
- Gloves
- Eye Protection/Goggles
- Ideally, disposable gowns are preferred, but when disposables are not available a clean lab coat can be used; *the gown/lab coat should have cuffs, a high neck and be long enough to cover the lap.*

Aerosol Generating Procedures

- Professionally fitted N95 mask or respirator Health Canada Masks and Respirators During COVID-19 OR
  ASTM Level 3 mask with Face Shield, preferably with side shields
- Protective eyewear
- Gloves
- Bouffant cap
- Ideally, disposable gowns are preferred, but when disposables are not available a clean lab coat can be used for each patient; *the gown/lab coat should have cuffs, a high neck and be long enough to cover the lap.*
- Additional precautions as per *Organization for Safety, Asepsis and Prevention (OSAP), 2004*

PPE Donning & Doffing

More than one donning and doffing method may be acceptable. Training and practice[7] using your office's procedure is critical. It is important to remember that if you are wearing loupes, you should be wearing a face shield in front of your loupes. Be mindful when you are adjusting the light on your loupes, to perform hand hygiene before and after adjusting your light. Additionally, if you are using a respirator, you should be wearing a mask overtop. Examples of donning doffing videos and guidelines are listed below and see Appendix A and B for examples of audit tools you can adapt for your purposes. Shared Health has put in place 'Extended Wear' guidelines for face masks in Green Zones.

[7] Houghton C, Meskell P, Delaney H, Smalle M, Glenton C, Booth A, Chan XHS, Devane D, Biesty LM. Barriers and facilitators to healthcare workers' adherence with infection prevention and control (IPC) guidelines for respiratory infectious diseases: a rapid qualitative evidence synthesis. *Cochrane Database of Systematic Reviews* 2020, Issue 4. Art. No.: CD013582. DOI: 10.1002/14651858.CD013582.

Donning & Doffing Videos/ Guidelines

Shared Health Manitoba Donning and Doffing Guidelines

https://www.youtube.com/watch?v=B5ew8020fwc&feature=youtu.be

https://www.youtube.com/watch?v=Lly8DjGcvDM&feature=youtu.be

CDC Recommendations

WHO Handwash Poster

WHO Handrub Poster

Pre-Appointment Infection Control

- Dental hygienists are to adhere to best practice with respect to work attire that is, attend work wearing scrubs and don dedicated footwear at work. Doff scrubs at end of workday at work, place in plastic bag to transport to home then perform hand hygiene. Change into clean clothing and different footwear to travel home. At home scrubs are laundered and dried with high heat.
- COVID-19 best practice includes not wearing rings, watches, wrist jewellery and nametags because they can act as a fomite for disease transmission.
- All supplies for the procedure should be anticipated ahead of time and place in the operatory to avoid going into cupboards during the procedure.
- Remove non-essential supplies or products from operatories (Wall certificates should be made available on request if not posted in the operatory)
- Patients should be encouraged to arrive on premises with masks on, this could include cloth masks.
- Companions accompanying patient's appointments must be avoided if at all possible. If companions are necessary and can't be avoided, companions accompanying patient's appointments (parents, translators) must also pass the patient screening tool (includes temperature) and don a level 1 mask prior to admittance to clinic space.
- Companions should not be allowed in operatory during aerosol generating procedures
- For patients and companions entering the office, provide alcohol-based hand rub (ABHR) (60-90%), provide tissues and no-touch receptacles in which to throw away

used tissues.

- Ensure appropriate social distancing and minimize waiting room use for patients or their companions and ensure social distancing throughout appointment session.
- Minimize use of waiting rooms. Strategies may include having patients wait in a vehicle or other location outside of the office when possible. Call the patient when the operatory is ready for treatment.
- Escort patients directly to the operatory when possible.
- Patient hand hygiene required upon entry into the operatory.
- Enhanced cleaning, including twice daily cleaning of high touch surfaces.
- Visible reminders/posters for patients to maintain physical distancing, proper cough/sneeze etiquette, and hand hygiene. Materials available from Shared Health.

Clinical Care Infection Control

- Prior to patient care, flush all dental unit waterlines in operatory for 2 minutes and 20 seconds between patients.
- Preprocedural 1% hydrogen peroxide[8] mouth rinse must be performed by the patient and expectorated into the same dispensing cup prior to examination and procedures within the oral cavity (Chlorhexidine is not acceptable).
- Appointment times should be spaced to promote physical distancing and allow adequate time for increased IPC and PPE protocol.
- When exiting, provide the patient ABHR (70-90%) and have them don an ASTM Level 1 mask.

[8] Wang, D., Hu, B., Hu, C., Zhu, F., Liu, X., Zhang, J., ... & Zhao, Y. (2020). Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus–infected pneumonia in Wuhan, China. *Jama*, *323*(11), 1061-1069.

Post Clinical Care Infection Control

- Full face shield should be worn during decontamination procedures.
- All clinical contact surfaces must be cleaned and disinfected OR single-use surface covers must be replaced between clients.
- For disinfection recommendations, refer to Health Canada Hard surface disinfectants for disinfectants, following manufacturer's instructions.
- Single use surface covers must be applied to high touch areas (light switches, light switch handles, bracket table handles, headrest) with clean hands, following their removal, clean and disinfect all surfaces.
- Components of dental devices that are permanently attached to the dental unit water lines (e.g., electric handpiece motors, handles for ultrasonic devices attachments for saliva ejectors, high-speed air evacuators, etc.) must be disinfected or covered with surface barriers that are changed after each use.
- Radiographic equipment (e.g., tube heads and control panel) must be cleaned and disinfected between clients or protected with surface barriers that are changed between clients.
- Items that are not single-use disposable, must be transported to medical device reprocessing area in covered container then decontaminated, packaged, and sterilized and stored in clean, dry, covered area that can be handled with clean hands.
- Single-use disposable items must not be reprocessed

After Clinical Care

Work shoes should stay at work and dental hygienists should change out of scrubs or work clothes before returning home. Discard disposable gowns and any protective clothing (including scrubs) should be transported in a moisture-impervious bag which is either laundered with the scrubs or discarded. Laundry is to be washed and dried on high heat. Once home, dental hygienists should remove and wash clothing (separately from all other household laundry), and immediately shower. Office attire should not be worn outside the office.

Record Keeping

Maintain documentation including tracking instrument reprocessing and sterilization. Information should be clear and easily accessible should contact tracing for a client be required. Client charting includes answers to screening questions and documenting temperature. Paper charts should be kept outside of the operatory as they increase the risk of cross contamination.

Additional Resources

Health Canada

www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html

CDC

https://www.cdc.gov/coronavirus/2019-ncov/hcp/dental-settings.html

https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html

https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html

https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html

WHO

www.who.int/emergencies/diseases/novel-coronavirus-2019

American Dental Association

https://www.ada.org.au/Covid-19-Portal/Dental-Professionals ADA Return to Work Toolkit

American Dental Hygienists Association

https://www.adha.org/resources-docs/ADHA_TaskForceReport.pdf

https://www.alberta.ca/assets/documents/covid-19-workplace-guidance-for-business- owners.pdf

https://ipac-canada.org/reprocessing-of-ppe.php

ECDC

www.ecdc.europa.eu/en/novel-coronavirus-china LitCovid

https://www.ncbi.nlm.nih.gov/research/coronavirus/ Australian Dental Association

https://www.ada.org.au/Covid-19-Portal/Dental-Professionals

Appendix A - Basic Donning/Doffing Audit Tool

Enhanced droplet/contact PPE Audit Tool

Date: _____ Auditors' Name: _____

Donning PPE	Op #		Op #		Op #		Op #		Op #		Op #	
DHCW wears scrubs and dedicated footwear	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Were personal items removed? jewelry [including rings], watches, cell phones, pagers, pens, lanyards, and tie back hair												
Was ABHR or soap and water used prior to putting on PPE for 15 sec?												
Put on head cover, is all hair covered?												
Was ABHR or soap and water used prior to putting on further PPE?												
Put gown on. Does the gown: open to the back? tie at the neck then waist and secured? cover the skin and clothing?												
Was the N95 mask put on?												
Is mask secured with lower elastic on neck, upper elastic behind head?												
Is the metal piece on the mask shaped to the bridge of the nose?												
For N95-was a seal check performed?												
Was eye protection put on? Mark yes if eye protection in place *Eyeglasses do not count as eye protection*												
Is the full-face shield over the surgical facemask to protect eyes, front and sides of face? Pinch nosepiece												
Don shoe covers; cover whole shoe?												
Performed HH?, don nitrile gloves under cuff of gown, then sterile gloves over gown cuffs												

Emergency Dental Clinic, Dr. Gerald Niznick College of Dentistry, Rady Faculty of Health Sciences, University of Manitoba
Adapted from Shared Health, IAHCSMM Central service technician manual (2016), crafted by C. Isaak-Ploegman
April 5, 2020 (with permission)

	Op #		Op #		Op #		Op #		Op #		Op #	
Doffing PPE	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Removes surgical gloves first?												
When gloves removed did they: • grasp the palm and remove the first glove, then pulling the glove inside out? • scooped under the second glove with nitrile gloved finger to remove the second glove? • placed in garbage?												
Was bouffant cap removed, leaning back?												
When gown was removed did, they? • untie the neck then waist • scoop fingers under cuff then pull sleeve over one hand • use gown covered hand to pull gown over other hand • pull gown off without touching the outside • roll gown away from person inside out • place in laundry hamper or garbage as appropriate												
Removed shoe covers? if grasps furniture clean afterward?												
Remove second set of nitrile gloves? • grasp the palm and remove the first glove, then pulling the glove inside out? • scooped under the second glove with nitrile gloved finger to remove the second glove? • placed in garbage?												

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	Op #		Op #		Op #		Op #		Op #		Op #	
Doffing PPE cont'd	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Performed hand hygiene? for 15 sec												
DHCW left the operatory before removing the face protection?												
Leaned forward to remove mask with shield removed using the loops and placed in garbage?												
N95 mask was: • leaned forward to remove first with neck loop? • Then removed with head loop? • placed in the garbage bin while not touching front of mask only the loops?												
Was eye wear (loupes or glasses) removed?												
Was hand hygiene performed after masks and eyewear was removed?												

Personal Protective tips:
Do not dangle a mask around the neck when not in use
Do not reuse mask
Change mask if it becomes wet or soiled
Do not use same pair of gloves for more than one patient
Do not clean gloves for reuse
Remove gloves and perform hand hygiene immediately after patient care activities. If gloves are still indicated, replace with a clean pair.

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Appendix B- PPE audit tool for DH's using half mask respirators and loupes

Enhanced droplet/contact PPE Audit Tool for High risk Procedure

Date:_____ Auditors' Name:_____

Donning PPE	Op #		Op #		Op #		Op #		Op #		Op #	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
DHCW wears scrubs and dedicated footwear												
Were personal items removed? jewelry [including rings], watches, cell phones, pagers, pens, lanyards, keys, and tie back hair												
Wash with soap and water with a nailbrush for 30 sec prior to putting on PPE?												
Don Loupes												
Was ABHR or soap and water used next (15 sec)?												
Don half-mask respirator												
For respirator-was a seal check performed?												
Was ABHR or soap and water used next (15 sec)?												
Put on head cover, is all hair covered?												
Was ABHR or soap and water used (for 15 sec) prior to putting on further PPE?												
Put gown on. Does the gown: • open to the back? • tie at the neck then waist and secured? • cover the skin and clothing?												
Was a mask put on covering front of respirator? Is the mask shaped over the respirator? Are ear loops of mask under head cover?												
Is the full-face shield over the mask protecting eyes, front, sides of face?												

Donning PPE cont'd	Op #		Op #		Op #		Op #		Op #		Op #	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Don shoe covers; cover whole shoe?												
Performed Hand hygiene?, don nitrile gloves under cuff of gown, then sterile gloves over gown cuffs												
Doffing PPE												
Removes surgical gloves first?												
When gloves removed did they: • grasp the palm and remove the first glove, then pulling the glove inside out? • scooped under the second glove with nitrile gloved finger to remove the second glove? • placed in garbage?												
Was head cover removed, lean away?												
When gown was removed did they? • untie the neck then waist • scoop fingers under cuff then pull sleeve over one hand • use gown covered hand to pull gown over other hand • pull gown off without touching the outside • roll gown away from person inside out • place in laundry hamper or garbage as appropriate												
Removed shoe covers? if leaned on surface cleaned surface afterward?												
Remove second set of nitrile gloves? • grasp palm, remove the first glove, then pull glove inside out? • scooped under the second glove with nitrile gloved finger to remove the second glove? • placed in garbage?												

Remove second set of nitrile gloves? • grasp palm, remove the first glove, then pull glove inside out? • scooped under the second glove with nitrile gloved finger to remove the second glove? • placed in garbage?												
	Op #		Op #		Op #		Op #		Op #		Op #	
Doffing PPE cont'd	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Performed hand hygiene? for 15 sec												
DHCW left the operatory before removing the face protection?												
Leaned forward to remove faceshield placed in garbage?												
Leaned forward to remove mask and placed in garbage while not touching front of mask only the loops?												
Performed hand hygiene for 15 sec ABHR or soap and water												
Was respirator removed and placed on a paper towel for disinfection afterward?												
Performed hand hygiene for 15 sec ABHR or soap and water												
Was eye wear (loupes or glasses) removed and placed on paper towel for disinfection afterward?												
Was hand hygiene performed after loupes or eyewear was removed?												

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