

# PURE Dental Hygiene Care

163 Westcott St., Peterborough, ON  
K9H 2H7 (705) 775-2532

## Covid-19 Safety Manual

June 2020

### STAKEHOLDERS

#### Internal

Registered dental hygienists

#### External

All Patients, trades, visitors, delivery persons and sales that enter the office spaces

### OVERVIEW

This document is the process manual for PURE Dental Hygiene Care pertaining to enhanced actions against potential spread and infection of Covid-19. This manual is to be used in addition to the standard infection and prevention control guidelines.

#### College of Dental Hygienists of Ontario (CDHO)--Infection and Prevention Control Guidelines

<https://www.cdho.org/docs/default-source/pdfs/reference/guidelines/cdho-ipac-guidelines.pdf>

### Additional Resources

#### CDHO Return to Practice Office Manual

<https://www.cdho.org/docs/default-source/pdfs/reference/guidelines/gui-returning-to-practice.pdf>

#### Public Health Ontario (PHO) PPE Recommendations

<https://www.publichealthontario.ca/-/media/documents/ncov/updated-ipac-measures-covid-19.pdf?la=en>

#### CDHO Guidance on the Extended Use of N95 Respirators

<https://www.cdho.org/docs/default-source/pdfs/reference/guidelines/gui-extended-use-n95-masks.pdf>

#### CDHO Guidance on Isolation Gowns

<https://www.cdho.org/docs/default-source/pdfs/reference/guidelines/guidance-isolation-gowns.pdf>

#### Update to CDHO Guidance on Returning to DH Practice

<https://www.cdho.org/cdho-news/cdho-news-item/2020/09/01/update-to-cdho-guidance-on-returning-to-dh-practice-and-use-of-isolation-gowns>

#### COVID-19 Updates - CDHO

<https://www.cdho.org/my-cdho/practice-advice/covid-19>

## **INFECTION CONTROL**

All the modifications for dentistry are based on reducing the risk of spreading infection from pre-appointment triage to physical distancing to personal protective equipment (PPE).

The CoVid-19 illness is especially challenging because infected people may not have any symptoms and do not know they are infected. For this reason PPE measures must be followed in full because each works together with the others to reduce the risk of the spread of infection.

**The infection control measures are presented as follows:**

- Office preparation
- Staff preparation
- Before the appointment
- During the appointment
- Clinical practices and protocols

### **Office Preparation**

The following protocols are to be observed until public health officials and the CDHO declare physical distancing and other measures are no longer required. PURE Dental Hygiene Care employs 1 person only, Angela Murphy, RDH (staff)

#### **Reception and Waiting Area**

1. Minimize contact and maintain social distancing among staff and patients

- Wearing of masks by staff in reception and waiting areas
- Seating in waiting room area has been minimized and all shared items removed
- Patients are encouraged to stay outside prior to appointment
- Patient accompaniment is not allowed at this time unless necessary
- Patient check in and check out process limited to one person in the area at a time
- Desktops and exposed surfaces to be decluttered, stationary and other equipment kept in drawers whenever possible.
- Clean and disinfect surfaces with detergent or soap and water if visibly soiled, then proceed with disinfection
- Disinfect frequently touched surfaces including chairs, tables, door handles, light switches, clothes hangers/knobs, bathrooms and fixtures, staffroom surfaces, lab areas etc.
- Hand washing instructions posted and ensure adequate supply of soap and disposable towels
- Post clear signage - on entrance door, waiting room, reception, operatory and wash rooms regarding physical distancing, hand hygiene, respiratory etiquette etc.
- Alcohol hand sanitizer (70-90%) at entrance for patients to use before entering any further, and bottles of the hand sanitizer also on reception desk so that patients will use it after coming back out from operatory just before they do the administrative paperwork and payments

## **Clinical Areas**

- Sterilization room cleaned regularly with appropriate PPE
- Only patients and necessary attendants allowed in clinical areas

## **Common Staff Areas –used by 1 employee ONLY**

- Disinfect touch surfaces often

## **Receiving Deliveries**

Minimize transmission risk by:

- Wearing gloves when collecting and/or accepting mail or packages
- Screening delivery personnel...if entering premises.
- Sanitize the exterior of boxes delivered
- Sanitize all surfaces that were touched by delivery items

## **Related Appendices:**

Appendix A - PHO [Cleaning and Disinfection for Public Settings - COVID-19](#)

Appendix B - PHO [Physical Distancing Poster](#)

Appendix C - PHO [Recommended Steps: Taking Off and Putting On Personal Protective Equipment \(PPE\) - COVID-19](#)

Appendix D - PHO [Handwashing Poster](#)

Appendix E - PHO [How to Self-isolate](#)

Appendix F - PHO [COVID-19: Heating, Ventilation and Air Conditioning \(HVAC\) Systems in Buildings](#)

Appendix G - PHO [How to Self-Monitor](#)

## **Staff Preparation**

The post-COVID-19 dental office is not the same as the pre-COVID-19 dental office.'

Staff understand the risk of infection and disease and feel that they are working in a safe environment. Until the pandemic recedes, effective therapy is available, or a vaccine is developed and administered to the vast majority of the population, COVID-19 remains a risk for everyone, especially vulnerable populations.

The dental office has changed, and dental office staff are prepared to adopt infection prevention measures wholeheartedly.

Before resuming work, staff was involved and oriented to workplace modifications and new office policies and protocols. They received training on safe work procedures including the risks and symptoms

of COVID-19, appropriate use of PPE, and safe handling of cleaning supplies through Public Health Ontario and CDHO.

## Daily Staff Screening

The health of the dental office staff is continually monitored on a daily basis. Staff screening focuses on this principle and includes a daily log confirming that they are not experiencing any symptoms of COVID-19.

Related Appendices:

Appendix H – [ODA Return to Work Screening Form](#)

Appendix I – [ODA Staff Daily Screening Form](#)

## Hand Hygiene

Strict hand hygiene is of paramount importance. Staff must wash or disinfect hands thoroughly:

- Upon entry into the dental office
- Before and after any contact with patients
- After contact with contaminated surfaces or equipment
- In between procedures and after removing PPE depending on the procedure, following established PPE protocols

## Splatter and Aerosols

Dentistry is potentially challenged in infection control because so many procedures create splatter and aerosols.

Splatter is made of larger particles and droplets that fall quite quickly. Aerosols are tiny droplets and particles that can float in the air for a longer time. Eventually, these tiny droplets settle or are cleared from the air. The time settling or clearing depends on the ventilation of the office.

### Splatter

Controlling splatter, particularly splatter that includes saliva, is extremely important in preventing COVID-19 transmission. Credible scientific evidence shows that SARS-CoV-2 is very contagious with droplets.

Uncontrolled splatter “gets everywhere” - on the patient’s face and clothes, on the dentist’s or hygienist’s face, hands, sleeves, clothing and on the floor. This splatter is easily transported, especially on clothing, to other areas of the office, including washrooms, front desk, break room etc. This is one way the virus spreads and infects people.

Evidence is beginning to show that healthcare workers are becoming infected not in the procedure room, but outside of the procedure room. When outside the treatment areas, safety measures such as barriers and/or PPE as specified in the PHO's guidelines are in place.

During the COVID-19 pandemic, splatter is minimized through the choice of procedures, and any splatter is controlled with high volume evacuation (HVE) and careful handling of splattered PPE, clothing and surfaces. Absolute care is taken to ensure any splatter is not carried outside the procedure area.

***Splatter is the most common infectious risk in the dental office with an infectious virus.***

### **Aerosol Generating Procedures (AGPs)**

Dental aerosols are generated with many procedures, as shown in Table 1.

Aerosols that may contain SARS-Cov-2 from an infected patient occur when saliva is aerosolized along with products of the procedure. At PDHC, this occurs from the use of an ultrasonic scaler, slow rotary hand-piece or air/water syringe spray where the saliva cannot be prevented from entering the procedure area and becoming aerosolized. If these procedures are required, they are performed with measures to mitigate the impact of aerosols.

For many procedures, potentially infectious aerosols may be minimized with the following steps:

- Patient rinses with 1% hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) for 60 seconds
- Use of HVE

When the above steps are followed, and the treatment proceeds with use of ultrasonic scalers, rotary slow-speed hand-pieces and air/water syringe sprays-- the aerosols created will only contain ***no*** infectious saliva, minimizing the risk of infectious aerosols.

Using HVE will minimize risk of infectious aerosols and is expected to be suitable for patients in the low risk category for COVID-19. Research is currently underway to quantify the risks of this approach.

## Dental Devices and Procedures Known to Produce Airborne Contamination

Device and/or procedure	Contamination
Ultrasonic and Sonic Scalers	Considered the greatest source of aerosol contamination; use of a high-volume evacuator will reduce the airborne contamination by more than 95%
Air Polishing	Bacterial counts indicate that airborne contamination is nearly equal to that of ultra-sonic scalers; available suction devices will reduce airborne contamination by more than 95%
Air-Water Syringe	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%
Tooth Preparation with High Speed Handpiece	Minimal airborne contamination if a rubber dam is used
Tooth Preparation with Air Abrasion	Bacterial contamination is unknown; extensive contamination with abrasive particles has been shown

***Special Note: At PDHC—NO high speed hand-pieces or air abrasion are utilized***

## Clothing and Office Environment

In the highly infective COVID-19 environment, staff are wearing scrubs at work. Scrubs and shoes are only worn in the office and are put on when entering the office at the start of the day and removed at the office at the end of the day. In addition:

- Movement between the clinical area and the front office is minimized
- In clinical areas:
  - Keep surfaces clear of items as much as possible
  - Keyboards and computer mice etc. are covered with clear plastic barriers that are changed between patients
  - Minimize paperwork and all charts are in electronic format—no paper charts in operatory

## Clearing the Air (of Aerosols)

Research is ongoing with respect to transmission of COVID-19 through dentally generated aerosols and as information becomes available, it will be incorporated into this manual. If air can have contaminants in it following a dental procedure, how does it become safe again?

### **Aerosol contaminants are removed in the following ways:**

1. They settle out of the air and land on surfaces, including clothing
2. They are evacuated and either removed from the space completely, by air exchange

The air changes per hour (ACH) in a space can be affected by many factors including the physical

Lay out of the office, the ventilation systems, the height of the ceiling and the presence of windows that can be opened etc.

The ACH at PDHC has been determined by HVAC/ventilation professional---Otonabee Technical and can be modified if needed. See below for report.



**OTS Engineering**  
Division of Otonabee Technical Services Ltd.

June 10, 2020  
Job # : 20036

Angela Murphy, RDH  
PURE Dental Hygiene Care  
163 Westcott Street  
Peterborough, ON K9J 2G7

Attention: Mrs. Angela Murphy

Cc: Mr. Bill Banks

Re: **Dental Treatment Room - 163 Westcott Street., Peterborough**

Dear Angela:

We have been retained by your company to calculate the air changes per hour in a dental treatment room.

Referencing the engineering HVAC report dated February 11, 2014, the Treatment Room is approximately 120 square feet floor area. For 9 feet ceiling height, and 100-120 cfm airflow, the Air Changes per Hour (ACH) is approximately 6.

Based on the attached Table B1, the airborne contaminant removal time at 99.9% efficiency is approximately 69 minutes. This can be shortened using HEPA filters.

**Using air purifier with HEPA filters**, such as manufactured by Austin Air, based on the space square footage (SF), unit with the rating designed for 11 feet x 11 feet will provide the Air Changes per Hour to **22 ACH**. The datasheet from the supplier noted the airflow rating to approximately 250 cfm at low speed and peak of 400 cfm at high speed. The unit technical specification note the MERV rating to be MERV 17 ( >99.97% efficient) or with HEPA filters.

Combining the existing airflow of 120 cfm and the plug-in unit peak airflow of 400 cfm; the estimated combined Air Changes per Hour is approximately **29 ACH**.

The fallow time for this 29 ACH value based on the CDC Table 1 (see attached) is approximately 17 minutes, with airborne contaminant removal time at roughly 99.9% efficiency of the HEPA filters. The existing HRV providing outside ventilation air and the operable windows (if the outside temperature allows) are also a plus to the contaminants removal as per ASHRAE recommendation.

The Owner or Client is advised to contact manufacturers of the HEPA plug in unit for further information on the ventilation units, including recommended location of units and frequency of the filter change.

P.O. BOX 1941  
294 RINK ST.  
PETERBOROUGH, ONTARIO K9J 7X7

TEL: (705) 745-5530  
FAX: (705) 745-7486  
E-mail: Steve.Stranaghan@otsengineering.com



Refer to the guidance from PHO on aerosol management. Avoid AGP when possible and reduce aerosols at source with HVE.

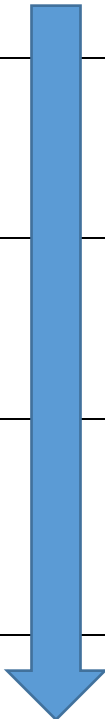
## Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) is a key line of defence for dental office staff for preventing infection.

In a pandemic environment, dental office staff at PDHC use the appropriate PPE. The necessary PPE is indicated by PHO and CDHO and it is based on the dental care being provided, or functional task in the dental office (e.g. reception, room cleaning, etc).

***The hygienist at PDHC must still follow all standard precautions as outlined in the CDHO's Infection Prevention and Control Guidelines. Any additional measures, specific to COVID-19 are supplemental to these requirements.***

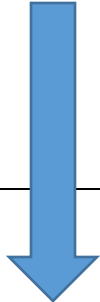
## Masks

Level Of Protection	Mask	Indications	Use
	N95	Used for procedures likely to produce aerosols	All Aerosol-Generating Dental Procedures (AGDPs)
	ASTM1 Level 3 – High Barrier	Used for procedures where heavy levels of spray and/or spatter (not aerosol) may occur	Use when there is a high risk of sprays and/or spatter exposure
	ASTM Level 2 – Moderate Barrier	Used for procedures where moderate levels of spray and/or spatter (not aerosol) may occur	Use when there is a moderate risk of sprays and/or spatter exposure
	ASTM Level 1 – Low Barrier	Used for procedures with low levels of spray and/or spatter (not aerosol), client or staff isolation. Provides minimal protection	General use for procedures and exams that don't involve aerosols, spray or spatter
	Surgical Molded Utility Mask	Simple physical barrier	Use for dry, short procedures that do not produce fluid, spray or aerosols

American Society for Testing and Materials rates masks according to several parameters including resistance to penetration of fluids, breathability, bacterial filtration efficiency and filtration of sub-micron particles.

## Gown Selection

For further information, see the [CDHO Guidance on Isolation Gowns](#).

Level of Protection	Gown	Indications	Use
	Surgical	Prevent the transfer of microorganisms and body fluids when being in a sterile environment is required	Healthcare providers wear these gowns when they are working in a sterile environment
	Isolation	Prevent the transfer of microorganisms and body fluids in client isolation situation	Protect the clothing of healthcare providers, visitors and clients from contamination

## Summary of PPE Recommendation

Setting	Individual	Activity	Type of PPE or Procedure
Clinic Treatment Room	Dental hygienist	Aerosol-generating Procedures	<ul style="list-style-type: none"> <li>• N-95 mask</li> <li>• Isolation gown</li> <li>• Gloves</li> <li>• Eye protection (goggles or face shield)</li> </ul>
	Visitors accompanying clients	Entering the room of a client having aerosol-generating procedures	<p><b>If the visitor is a household member of the client (e.g., a parent/child),</b> then no PPE, other than a mask for source control, is required as the visitor would have already been exposed in the household.</p> <p><b>If the visitor is not a household member of the client (e.g., a worker who supports a client with disabilities),</b></p>

Client Treatment Room			using a precautionary principle, the visitor wears a surgical mask and eye protection, and stands at least two metres (six feet) from the head of the dental chair where the work is being performed
	All staff including dental hygienist	Non-aerosol-generating procedures	Routine practices and droplet and contact precautions including: <ul style="list-style-type: none"> <li>• Mask (Level 1–3)</li> <li>• Isolation gown</li> <li>• Gloves</li> <li>• Eye protection (goggles or face shield)</li> </ul>
Triage	Dental hygienist/ front office staff	Preliminary screening not involving direct contact	If able to maintain spatial distance of at least 2 m or separation by physical barrier <ul style="list-style-type: none"> <li>• Routine practices</li> </ul>
Triage	Dental Hygienist	Preliminary screening involving direct contact (i.e. temperature reading)	Routine practices and droplet and contact precautions including: <ul style="list-style-type: none"> <li>• Mask (Level 1–3)</li> <li>• Isolation gown</li> <li>• Gloves</li> <li>• Eye protection (goggles or face shield)</li> </ul>
Administrative area	All staff including dental hygienist	Administrative tasks that do not involve	Routine practices

		contact with clients	
Reception/Waiting room	All staff	Any activity that does not involve contact with client suspected or confirmed of having COVID-19	Routine practices and additional precautions based on risk assessment
Reprocessing area	All staff	Activities where aerosols are anticipated	<ul style="list-style-type: none"> <li>• N-95 respirator/mask</li> <li>• Isolation gown</li> <li>• Gloves</li> <li>• Eye protection (goggles or face shield)</li> </ul>
		Activities where sprays, splashes or spatter are anticipated	Routine practices including: <ul style="list-style-type: none"> <li>• Mask (Level 1–3)</li> <li>• Isolation gown</li> <li>• Gloves</li> <li>• Eye protection (goggles or face shield)</li> </ul>

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### Related Appendices:

**Donning & Doffing PPE** - Please see Appendix C - PHO Recommended Steps: Taking Off and Putting On Personal Protective Equipment (PPE) - COVID-19

**Donning & Doffing PPE N95** - Please see Appendix C - PHO Recommended Steps: Taking Off and Putting on Personal Protective Equipment (PPE) - COVID-19

### Before the Appointment

- Perform client screening for symptoms of COVID-19 using regular screening questions from the [Ministry of Health's COVID-19 Patient Screening Guidance Document](#) and by requesting or taking and recording client temperature.
- Clients who screen positive must not attend the facility and should be advised to contact their primary care provider or Telehealth Ontario at 1-866-797-0000 for further guidance.

- Assess suitability for providing client care remotely as per the [Guideline for Inclusion of Tele-dental Health in Dental Hygiene Practices](#).
- Explain the changed office protocols to the patient. Advise them to bring their own mask to wear within the office and follow office protocols

In this new COVID-19 pandemic environment, patient screening cannot be emphasized enough. You need to ask the right questions to find out if the patient coming to your office may be infected but asymptomatic. It's about knowing who's in your chair and where they've been.

#### **Related Appendices:**

Appendix J – [CMOH COVID-19 Screening Tool for Workplaces \(Businesses and Organizations\)](#)

## **Upon Arrival and During the Appointment**

At PDHC—patients enter through front door and exit through side door.

***Due to the uniqueness of the clinic...scheduling is arranged so a client is treated and dismissed before another enters the office environment.***

#### **When Patients Arrive: Monitor adherence to protocols**

- Have patient wash hands or disinfect with hand sanitizer
- Provide patient with a level 1 STM mask OR instruct client to wear mask to their appointment at time of confirmation call/contact
- Complete patient arrival screening:
  - CMOH COVID-19 Screening Questionnaire
  - Take patient's temperature and record result with a contactless thermometer
- Ask patient to respect physical distancing (2m) with all staff and patients
- Limit patient time in the waiting room. Ideally, take patient to operator immediately

#### **When Patient is seated in Operator:**

- Chair-side staff, wash hands and don PPE before entering operator
- No hand-shaking or physical contact
- Wash hands and don gloves in room
- Review overall health history, confirming that the screening questions were asked during check-in and review if necessary
- Remove mask only outside operator
- Limit movement out of operator as much as possible
- Clean operator while wearing PPE
- Wash hands after doffing PPE
- Ensure PPE is donned and doffed appropriately

### As the Patient is Leaving:

- Have the patient wash or disinfect hands with hand sanitizer (70-90%) at front desk
- Pens for signing: clean in one bin, used in another. Pens to be disinfected and returned to clean pen bin regularly OR encourage client to bring and use their own pen
- Point of sales terminal - patients encouraged to interact with tap whenever possible and/or use back side of pen to enter pin to minimize contact. POS terminal is cleaned regularly and a plastic barrier on keypad is removed after every use
- Instruct clients before appointment and again upon leaving the importance of informing staff if experiencing symptoms of COVID-19 in the next 14 days

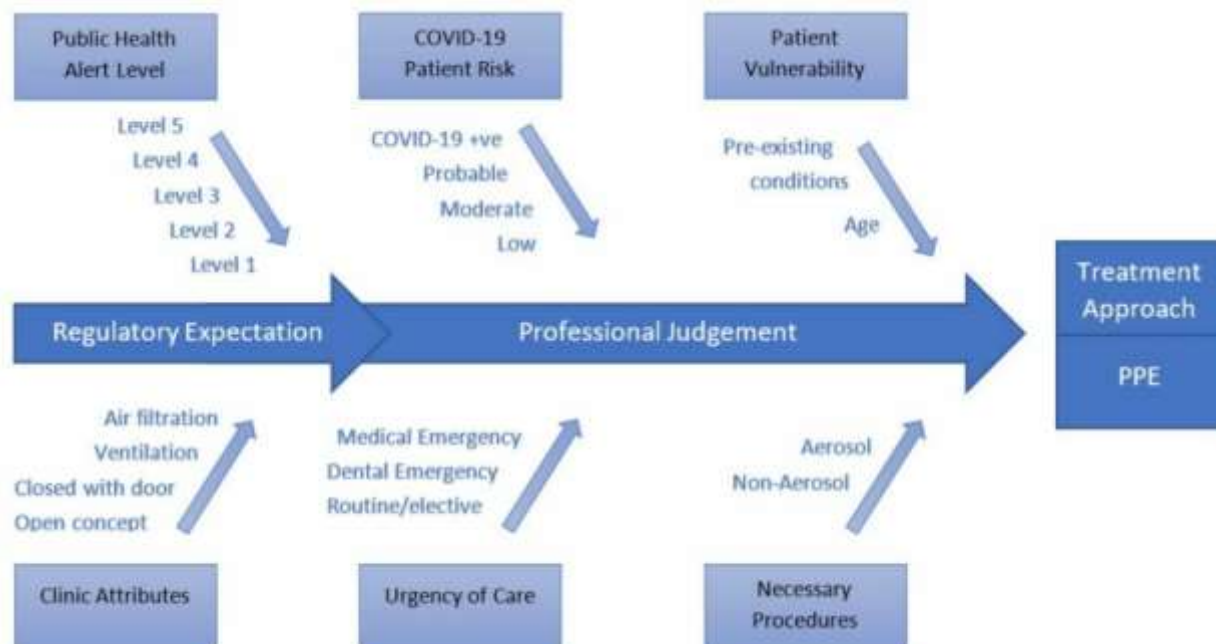
***Review and monitor protocols and practices and updates as needed.***

## Clinical Practices and Protocols

During a pandemic, public health officials will work with the CDHO to determine what level of dental care may be provided at a given time.

At all times, dentists and RDH's are expected to use their professional judgment based on the particular situation. There are many variables to consider, which change constantly (patient-to-patient, clinic-to-clinic, day-to-day) as the pandemic changes.

**Figure 1 illustrates the ongoing need for professional judgment, as is always the case in providing dental care.**



## Emergent vs. Urgent vs. Elective Care

The terms “emergent”, “urgent” and “elective” are more typically used in the medical/physician setting, however, during pandemic with communication from public health officials, these terms become commonplace in dentistry.

**Table 3 below shows “equivalency” of terms between medical and dental providers. At this time, dental hygiene care falls under “elective.”**

“Medical” Term	Dental Term
Emergent, Emergency	Medical emergency Life-threatening emergency
Urgent	Dental emergency Essential dental care
Elective	Elective Routine Non-urgent care

## Aerosol Generating Procedures (AGP)

**The following measures are in place at PDHC:**

- Limit AGPs as much as possible
- Have patient complete a pre-procedural rinse with 1% hydrogen peroxide, or similar, for 60 seconds. Have patient spit rinse back into cup provided, not the sink.
- Use HVE wherever possible
- Increased air circulation (exchanges) and ventilation in operatory by opening window, maintaining efficient HVAC system, continuously running operatory fan system and utilizing air washer with medical grade HEPA filter
- As per CDHO guidelines, use enhanced precautions due to possible asymptomatic spread

## **Other Measures**

### **Cleaning Protocols for Common Areas**

**Waiting Area** - require periodic regular cleaning throughout the day based on usage

**Reception Desk** - require full wipe down at end of each shift including high touch surfaces such as phone, computer, printer, stationary etc.

**Washrooms** - require cleaning after each use by a patient or staff

**Staff Area** - require cleaning after each use by staff for lunch, wipe down staff table and chairs

**Door Knobs/sanitizing containers:** require disinfection after every patient

### **Communication Plans**

Staff have been trained in office with all new implementations and protocols. Signage has been posted throughout the office and a complete copy of this manual is kept in the office for reference at any time. This manual is also accessible at our website: [www.puredentalhygienecare.com](http://www.puredentalhygienecare.com)

### **Monitoring and Updating**

These policies and procedures will be monitored on an ongoing basis and any new arising areas of concern will be addressed and added to this manual in the future.

Updates are accessed through the CDHO website: [COVID-19 Updates](#)