

Coronxiety

The Big Thing?

2020

Guidance to the Dental Team



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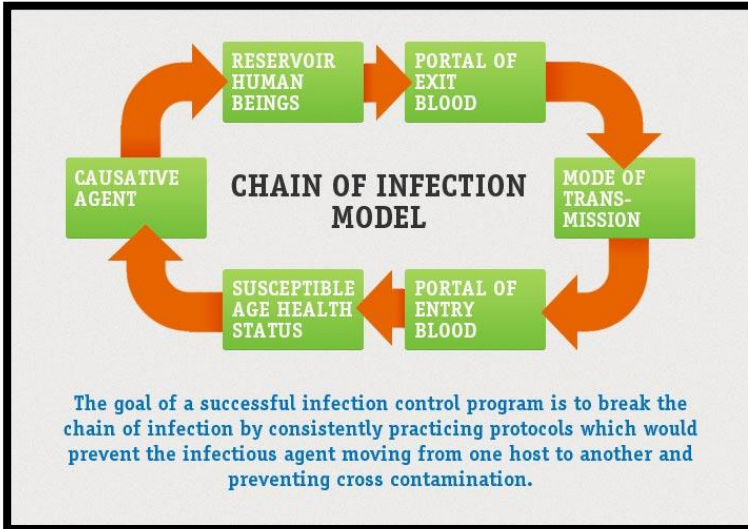
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“INFECTION CONTROL is a system of measures practice by healthcare personnel, including dental health care personnel (DHCP) in health facilities.

THE GOALS OF INFECTION CONTROL are to decrease transmission of infectious agents (e.g. bacteria, viruses etc. that produce infection).

INFECTION CONTROL STRATEGIES are designed to prevent healthcare associated infections in patients and injuries and illnesses in healthcare personnel.

INFECTION CONTROL MEASURES are based on how an infectious agents is transmitted and include standard, contract, droplets, and airborne precautions”.

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Adopted from OSHA & CDC guidelines: OSAP Interactive training Manual page 7.



What Members of the Dental team need to know about Covid-19?

Members of the Dental team are among the cadre of health professionals that are targeted for increased sensitization and training for Infection Prevention and Control during any outbreak relating to new and re-emerging infectious disease(s). The Oral and Dental Health Management branch in responding to aforementioned have prepared the following document as a guideline to all members of the Dental team. This document is not a one stop source for information during this Covid-19 outbreak and therefore advises all that information emanating from the Ministry of Health & Wellness, the Centers of Disease Control and Prevention and the World Health Organization should be adhered to as part of our Standard of Care.

On 30th January 2020, The World Health Organization (WHO) declared the outbreak of novel coronavirus 2019 /COVID-19 a “Public Health Emergency of International Concern (PHEIC)”. COVID-19 is the illness seen in people infected with the new strain of coronavirus not previously seen in humans. It was on December 31, 2019, that the Chinese authorities notified the World Health Organization (WHO) of an outbreak of a pneumonia type illness in Wuhan City, the cause of the illness/disease was later classified as a new strain of the coronavirus called COVID-19.

Coronaviruses are a family of RNA viruses that is very common across the world in animals and humans; certain types cause illnesses in people. For example, some coronaviruses cause the common cold; others cause diseases which are much more severe such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS), both of which often lead to pneumonia. However based on current clinical presentations, the main symptoms of COVID-19 are a cough, a high temperature and in severe cases, shortness of breath.

It is important to note that as the COVID -19 is a new virus, very little is known about it and currently there is no vaccine available to ensure increase immunity (herd Immunity) in the population. Without an available vaccine the implications are that, COVID-19 has the potential to rapidly spread extensively, in the community. Another issue associated with this novel disease is that some infected individuals though asymptomatic may still be infectious. Early data suggest that of those who develop an illness, the great majority will have a mild-to-moderate, but self-limiting illness – similar to the seasonal flu.

It is, self-evident that a minority of infected individuals will develop complications severe enough to require hospitalization, most often for pneumonia. In a small proportion of these patients, the illness may be severe enough to cause death. So far, the data suggest that the risk of severe disease and death increases amongst the elderly and in individuals with underlying health risk conditions (in the same way as for seasonal flu – see Appendix A for Health Risk conditions). The Illness is less common and usually less severe in younger adults. Children can be infected and may have a severe illness, but based on current data the overall illness seems less common in younger population, under 20 years of age. So far, there has been limited information about the vulnerability of pregnant women to COVID-19.



Standard of Care for Infection Control in Dentistry for COVID-19 & Policy and Procedure on hand hygiene for the Dental Team

Hand Hygiene

The World Health Organization and the Centers for Disease Control and Protection in the USA promote 'Hand hygiene' as the single most important way to reduce the risk of disease transmission, especially with the recent COVID -19 outbreak.

To ensure that all members of the dental team always use the proper technique for hand hygiene, it is important to anticipate the type and length of procedures the dental practitioner will be performing in the surgery, the degree of contamination that one is likely to encounter and the persistence of anti-microbial activity that will be needed.

Step:

1. Perform hand hygiene with both a non-antimicrobial or antimicrobial soap and water when hands are visibly dirty or contaminated with blood or other potentially infectious material. If hands are not visibly soiled then an alcohol-based (use only 70% Alcohol) hand sanitizers should be used.
2. Follow the manufactures instructions as well as the WHO guidelines for the use of alcohol based hand sanitizers.

Indications for hand hygiene shall include the following: (Refer to Hand hygiene audit tool on opportunity based procedures and the "five moments for hand hygiene produced by the WHO).

**** We should wash our hands:**

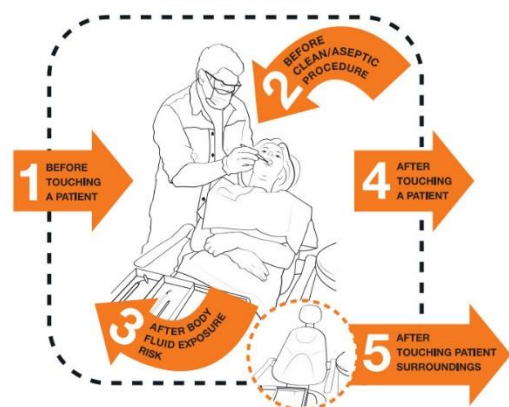
- A. When hands are visibly soiled.
- B. After barehanded touching any inanimate objects that are likely to be contaminated by blood, saliva or respiratory secretions.
- C. Before and after treating each patient.
- D. Immediately after removing gloves.

Your 5 Moments for Hand Hygiene

******The WHO five moments for hand hygiene are as follows:**

1. Before touching the patient
2. before clean/aseptic procedure
3. after body fluid exposure risk
4. After touching a patient
5. After touching patient surroundings

Dental Care



- **For oral surgical procedures**, perform surgical hand antisepsis before donning (putting on) sterile gloves. Follow the manufacturer's instructions either by using an anti-microbial soap and water, followed by drying hands and application of an alcohol-based surgical hand scrub product with persistent activity.
- Store liquid hand-care products in either disposable closed containers or closed containers that can be washed and dried before refilling. Do not add soap or lotion to (i.e. top off) a partially empty dispenser.
- Avoid using multiple use, hanging towels in health-care settings. The use of Disposable paper towels are more hygienic and is highly recommended.
- The Hand-Hygiene Process should include the six critical steps which will ensure that all the areas of the hands are covered. Posters that demonstrate and remind the healthcare personnel and even the public for proper Hand hygiene must be displayed in the surgery. The same could be posted within and around the areas of any organization.

Hand hygiene is an essential infection control practice to protect the Dental Surgeons, Dental Nurses/Therapists, Dental Hygienists, Dental Assistant, patients, other healthcare personnel and visitors, and is required for both Standard and Expanded Precautions. Hand hygiene should be performed immediately after removing PPEs, during PPE changes (with removal if necessary), and between patient contacts.

Wash hands thoroughly with soap and water or, if hands are not visibly soiled, use an alcohol-based hand rub/sanitizer. Alcohol based hand rubs/ sanitizers provide persistent antimicrobial activity on the skin and are particularly useful for a quick asepsis and it can be done on the go. Critically placed hand sanitizer dispensers should be located thorough the dental surgery /practice and this will enable easier access to the supplies for proper hand hygiene practice. It must also be available for the patients and visitor of the Surgery or health facility. It is important to note that these agents are NOT effective cleaners and should NOT be used when hands are visibly soiled.

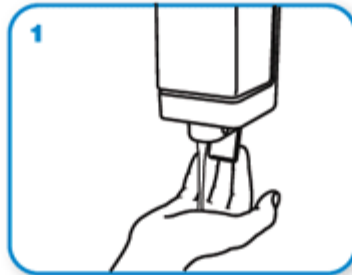
In addition to practicing Good hand hygiene measures, Dental Personnel are advised to do the following:

1. Continue to monitor local information from the Ministry of Health & Wellness as well as information from the Health Departments in the Parishes about COVID-19
2. Continue to practice personal protective measures in all settings.
3. Continue to put household plan into action.

Standard Handwashing Technique



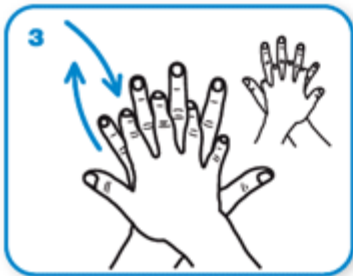
Wet hands with water



apply enough soap to cover all hand surfaces.



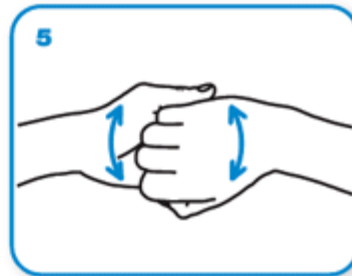
Rub hands palm to palm



right palm over left dorsum with interlaced fingers and vice versa



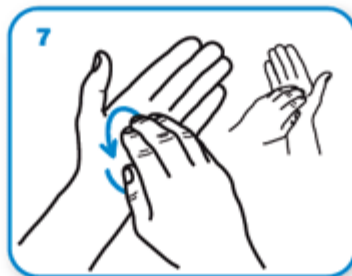
palm to palm with fingers interlaced



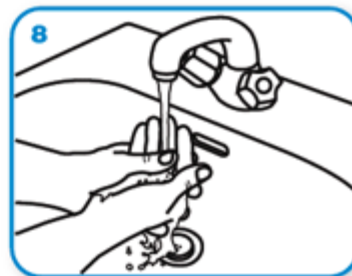
backs of fingers to opposing palms with fingers interlocked



rotational rubbing of left thumb clasped in right palm and vice versa



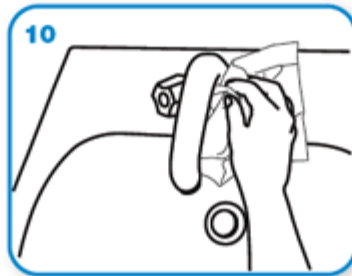
rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.



Rinse hands with water



dry thoroughly with a single use towel



use towel to turn off faucet



...and your hands are safe.

How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

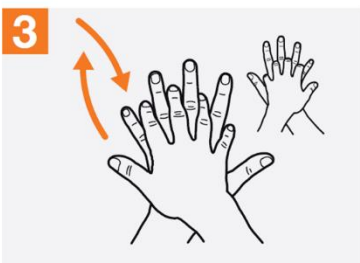
 Duration of the entire procedure: 20-30 seconds



1a Apply a palmful of the product in a cupped hand, covering all surfaces;



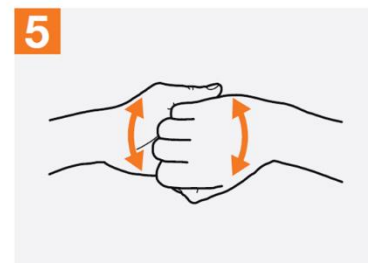
2 Rub hands palm to palm;



3 Right palm over left dorsum with interlaced fingers and vice versa;



4 Palm to palm with fingers interlaced;



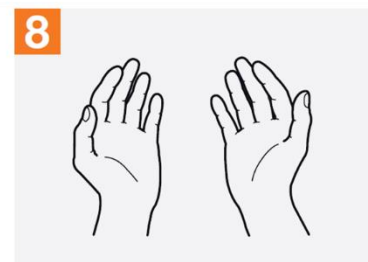
5 Backs of fingers to opposing palms with fingers interlocked;



6 Rotational rubbing of left thumb clasped in right palm and vice versa;



7 Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



8 Once dry, your hands are safe.



World Health Organization

Patient Safety

A World Alliance for Safer Health Care

SAVE LIVES

Clean Your Hands

Policy and Procedure on the use of facial mask for the Dental team

“It is important to remember that the best way to prevent the spread of respiratory disease is by using everyday preventative actions,” said CDC director Robert R. Redfield, MD.

Emergency Dental Treatment

It is imperative, for all Dental Practitioners, to note that when patients present with respiratory infection symptoms, the Dental Healthcare worker should strongly consider postponing non-emergency or elective dental procedures until the patients are no longer contagious with diseases that may be transmitted either through airborne, droplet, or contact transmission such as sneezing, coughing, or contact with skin.

Where a dental emergency or an urgent dental treatment is required, both the dentist and the medical doctor should work together to determine the appropriate precautions on a case by case basis to avoid the potential spread of diseases among patients, visitors, and staff.

The average Dental facilities are not designed to accommodate all the Transmission-Based Precautions recommended for hospital and other ambulatory care settings, the CDC advises, so Dentists and medical providers will need to determine whether the facility is an appropriate setting for the necessary services for a potentially infectious patient.

There is a great concern over COVID-19 virus by health-care providers and patients alike. Dental Surgeons and other members of the dental team need to be knowledgeable about the current recommendations from the local Ministry of Health and Wellness as well as information from Center for Disease Control and Prevention (CDC), Occupational Safety and Health Administration (OSHA), the American Dental Association (ADA) and the World Health Organization in order to keep ourselves and our patients healthy and limit the possible transmission of any virus.

Protection by Face Mask

Currently, there is ongoing investigation on mechanism for transmission of the disease, however the CDC recommends treating it as an airborne pathogen for health-care workers directly caring for COVID-19 patients. That means that any health-care workers, inclusive of any dental health care worker, interacting with a coronavirus patient should wear a heavy-duty mask called an N95 respirator, approved by the National Institute of Occupational Safety and Health (NIOSH). These respirators are designed to fit tightly around the nose and mouth, and, when worn correctly, block out at least 95% of small airborne particles.

The N95 respirators (approved by NIOSH) are effective in protecting the dental healthcare personnel from airborne exposure, including various types' influenza and the COVID-19 virus, which can cause serious or life-threatening disease. In addition to the use of the N95 respirators, dental personnel are advised to use ASTM 2 or ASTM 3 face masks in the regular clinical environment.



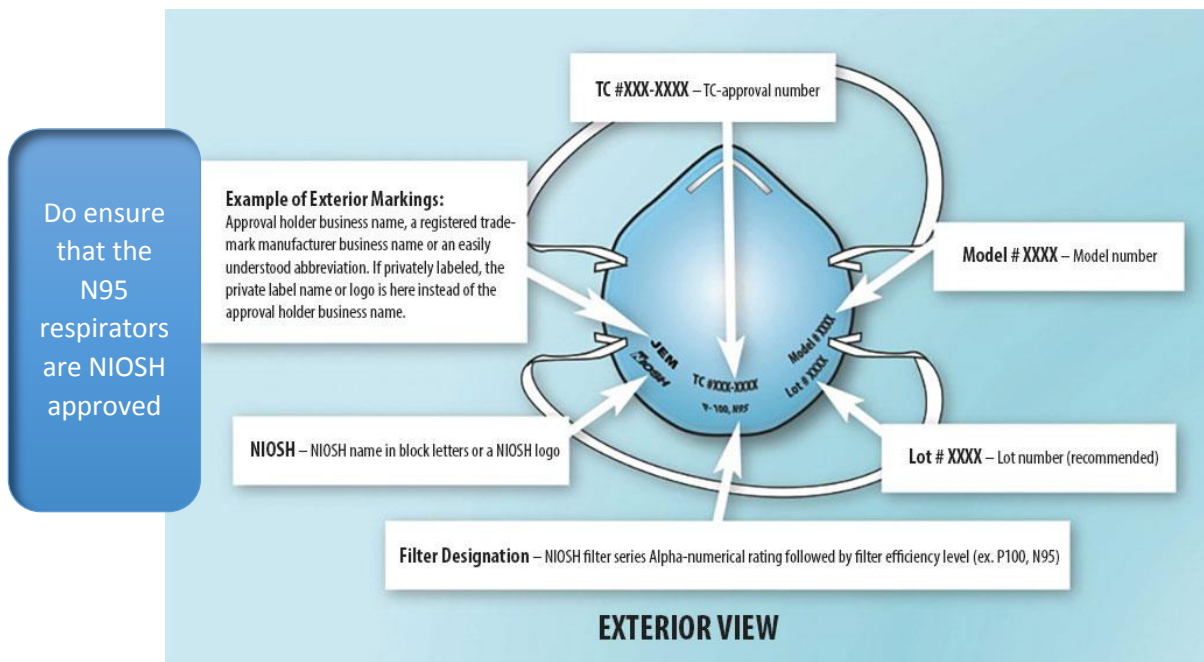
The typical surgical masks (ASTM 1, ASTM 2 and ASTM 3) are recommended as a physical barrier to protect the clinicians from splashes of large droplets of blood or body fluids. These Surgical masks provides protection of the clinicians, patients and visitors from cross infection, from the person wearing the surgical mask. The masks trap large particles of body fluids that may contain bacteria or viruses expelled by the wearer.

Surgical masks are used for several different purposes, including on sick people to limit the spread of infectious respiratory secretions to others, worn by health-care providers to prevent accidental contamination of patients' wounds by the organisms present in mucus and saliva, and worn by workers to protect themselves from splashes or sprays of blood or bodily fluids. They may also keep contaminated fingers/hands away from the face, mouth and nose.

Reusing of Surgical Masks

Surgical Masks are designated “single use item” by the manufacturer’s instructions, that means it should be used only once for one patient, then discarded, to this there are NO Exceptions! The CDC states, “A single-use device, also called a disposable device, is designed to be used on one patient and then discarded, not reprocessed for use on another patient.”

Mask should also be changes when its integrity is compromised due to wetness caused by exhaled moist air which condenses on the inner surface of the mask thereby increasing the resistance to the normal airflow through the mask. A wet mask must be changed between patients and during patient treatment. Other causes of Surgical Mask wetting includes using an ultrasonic scaler for dental cleaning/prophylaxis. These Wet mask must be changed during the procedure on the same patient.



Standard Precautions

“Small errors can have big consequences”.

Dental professionals should always adhere to: Current infection prevention and control guidelines. Also it is important to be compliant with the recommended standard precaution measures within the dental environment as advanced by the Ministry of Health and Wellness. Nevertheless, ascertaining pertinent travel, exposure and disease history along with a patient’s vitals and symptoms are essential for establishing a working diagnosis and treatment plan. Dental Practitioners are now required to be very thorough in our assessment before deciding to treat or not to treat a patient(s) in light of the recently declared pandemic for COVID -19.

Compliance therefore is a best practice standard and a commitment to always observing the recommended protocols, standards and guidelines in the Ministry of Health & Wellness.

There is no longer the concept of things just being ok and average, it is now whether the dental practitioners are compliant or non-compliant. Dental Surgeons, Dental Nurses/Therapists, Dental Hygienists, Dental Technicians and Dental Assistants are mandated to be compliant with all competencies and requirements related to the Standard Precautions and Infection Control.

Standard precautions include:

- 1) Hand hygiene Protocol and guidelines.
- 2) Use of personal protective equipment (gloves, masks, eyewear).
- 3) Respiratory hygiene/cough etiquette.
- 4) Sharps safety (engineering and work practice controls).
- 5) Safe injection practices (i.e., aseptic technique for parenteral medications).
- 6) Sterile instruments and devices.
- 7) Clean and disinfected environmental surfaces.



In addition, to obtaining a thorough travel and health history on all patients which is imperative in facilitating the identity of any potential patients that could be at risk for COVID-19. The decision of managing any cases should be considered prior to engaging in treatment services. Consulting with the Medical Officer(s) of Health or a Parish Dental Consultant is critical when confirming appointments, Dental personnel should consider having a dialogue with patients about any health changes or recent travel.

In the interest of safety and good public health practice, it is now considered a standard of care to reschedule patients who present with any questionable symptoms, or who may have been in contact with a known suspected case or who resides or had visited an area associated with an outbreak of COVID -19 illness. This delay or deferral of treatment measure is very strategic and would greatly assist in controlling and preventing the spreading of this and any other communicable diseases.

Our esteem profession is not without its challenges of occupational hazards from new and re-emerging diseases. The recent reoccurrence of several infectious diseases that were once thought to be extinct but are now showing signs of a resurgence and COVID-19 is the newest kid on the bloc. It is important to be compliant with the all recommendations and guidelines for infection control.

Be complaint, vigilant, intentional, and follow the MOH&W recommendations until this storm has passed; ultimately we are hopeful that a vaccine will be found.

Personal Protective Equipment

All of the PPE prevent contact with the infectious agent, or body fluid that may contain infectious agents, by creating a barrier between the worker and the infectious material (The PPE for COVID-19 is basically the same as for influenza). Gloves protect the hands, gowns or aprons protect the skin and/or clothing, masks and **respirators** protect the mouth and nose, goggles protect the eyes, and face shields protect the entire face.

DROPLET PRECAUTIONS
Standard Precautions always apply

Before entering room	Ready to Enter	Before leaving room
 1. Clean your hands		 1. Remove gloves, gown and fluidshield mask w/eye shield or mask w/goggles in room.
 2. Put on an isolation gown.	OR	 2. Clean your hands on the way out of the room.
 3. Put on a fluidshield mask w/eye shield or mask w/goggles.		
 4. Put on gloves.		

15-810410
(Revised 11/2010)

DROPLET PRECAUTIONS

Other considerations for the practice of Dentistry:

The Dental Environment:

The Dental Care setting carries the risk of COVID -19 transmission due to the specificity of dental procedures, which may often involve face to face communication with patients and frequent exposure to blood and saliva. Several studies have demonstrated that certain dental procedures can generate large amount of aerosols and droplets contaminated with viruses and other pathogens. Therefore the potential for aerosols and droplets transmission of the Covid -19 virus in the dental setting may be the most important consideration for the Dental Healthcare workers (DHCW) because it is hard to avoid the generation of aerosols and droplets mixed with saliva and blood during certain procedures. This may be compounded by the fact that DHCW are also frequently exposed to patient's cough, sneeze and breathing during normal operations.

In addition to the exposure to aerosol and droplets, dental instruments such the high speed handpieces and the ultrasonic scalers also generate significant amount of aerosols and droplets that will undoubtedly settle on environmental surfaces or may be inhaled and enter the respiratory tract.

Other recommendations:

The use of high speed handpiece:

It is highly recommended to use anti-retraction handpieces with specially designed anti-retractive valves during this Covid -19 pandemic. The use of handpieces without this technology should be limited.

The use of rubber dam isolation:

The use of rubber dam during restorative procedures is highly recommended.

Pre-procedure mouth rinse:

It is recommended to use pre-procedure mouth rinse with solutions containing at least 1% hydrogen peroxide or 0.2 % povidone.

High volume suction:

The high volume suction is recommended and should be used in all cases where an ultrasonic scaler is being utilized.

Disinfecting the environmental surfaces:

Standard infection control guidelines for dentistry should be followed at all times.

Appendix A:

Underlying medical conditions that may increase the risk of serious COVID-19 for individuals of any age.

- Blood disorders (e.g., sickle cell disease or on blood thinners)
- Chronic kidney disease as defined by your doctor. Patient has been told to avoid or reduce the dose of medications because kidney disease, or is under treatment for kidney disease, including receiving dialysis
- Chronic liver disease as defined by your doctor. (e.g., cirrhosis, chronic hepatitis) Patient has been told to avoid or reduce the dose of medications because liver disease or is under treatment for liver disease.
- Compromised immune system (immunosuppression) (e.g., seeing a doctor for cancer and treatment such as chemotherapy or radiation, received an organ or bone marrow transplant, taking high doses of corticosteroids or other immunosuppressant medications, HIV or AIDS)
- Current or recent pregnancy in the last two weeks
- Endocrine disorders (e.g., diabetes mellitus)
- Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)
- Heart disease (such as congenital heart disease, congestive heart failure and coronary artery disease)
- Lung disease including asthma or chronic obstructive pulmonary disease (chronic bronchitis or emphysema) or other chronic conditions associated with impaired lung function or that require home oxygen
- Neurological and neurologic and neurodevelopment conditions [including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy (seizure disorders), stroke, intellectual disability, moderate to severe developmental delay, muscular dystrophy, or spinal cord injury].

References:

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- 2) Ministry of Health & Wellness Dental Policy and Procedure Manual 2005
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- 9) OSHA Guidance on Preparing Workplaces for COVID-19, OSHA 3990-03 2020
- 10) CDC –Coronavirus disease 2019
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- 12) <https://ipac-canada.org/coronavirus-resources.php>

Prepared in consultation with the following stakeholders: Miss Beverley Johnson, Dr. Carlene Davis, Dr. Kelvin Bird, Dr. Eugenia Hines and Dr. Rena Francis –March 11, 2020.