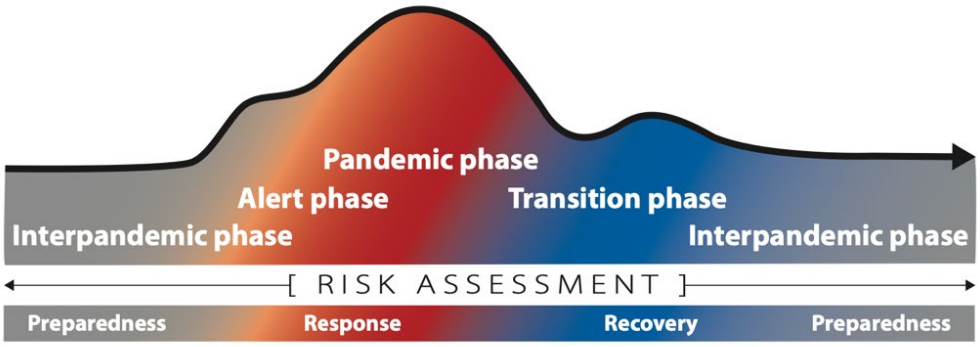
Interim Guidance for Community Dental Clinics During Pandemic Phase of the COVID-19 Response

April 23, 2020

BACKGROUND

The purpose of this document is to serve as an interim guide for facilities in Manitoba providing care to patients with dental emergencies during the **COVID-19 Pandemic Phase and associated response**. The guidance provided within this document may change as the Risk Assessment changes (See Figure A).



[a] This continuum is according to a "global average" of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.

Figure A - From Continuum of Pandemic Phases – World Health Organization, 2016

The information contained in this document are recommendations based on available information at present.

DENTAL SETTINGS

This document refers only to the treatment of asymptomatic patients appropriately screened using the Shared Health MB screening tool. https://sharedhealthmb.ca/covid19/screening-tool/

Patients with influenza-like illness (ILI) symptoms or known COVID-19 are not to be seen in community clinics. If emergency dental care is medically necessary for a patient 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. These patients should **NOT** be treated in a regular dental operatory.

When practising in the absence of Airborne Precautions, the risk of COVID-19 transmission during aerosol generating dental procedures cannot be eliminated. Caring for patients requiring Airborne Precautions is not possible in most dental settings as they are not designed for or equipped to provide this standard of care. For example, most dental settings do not have airborne infection isolation rooms (AIIR) or single patient rooms, do not have a respiratory protection program, and do not routinely stock N95 masks.

REFERRALS

Medical management through pharmacological modalities, where appropriate, is strongly recommended. Performing in person emergency care is not recommended if you cannot meet these guidelines or have insufficient Personal Protective Equipment (PPE).

Dentists wishing to refer patients to another clinic should complete a detailed referral and either fax/e-share and/or call ahead to discuss the case. Detailed information will allow for less in person triage and assist in decreasing risk to patients and providers. New or existing radiographs should be sent with the referral whenever possible.

ADMINISTRATIVE CONTROLS

- Limit activity to emergency services only according to the Manitoba Dental Association recommendations. https://www.manitobadentist.ca/covid-19-updates.cfm
- Ensure team members practice strict adherence to hand hygiene and respiratory hygiene.
- Team members who demonstrate or experience Influenza like symptoms should stay home and contact Health Links, identifying themselves as a health care provider.
- Team members who may be part of a high risk (eg: older adults, underlying medical conditions, immunocompromised) group should consider staying home.
- Facilities and organizations providing healthcare should implement sick leave policies that are non-punitive, flexible, and consistent with public health guidance.
- Screen team members at the beginning of their shift for fever or respiratory symptoms.
- Team members with respiratory symptoms or a temperature of 38 C or greater should be sent home for isolation and team member to call Health Links, identifying themselves as a Health Care Provider.
- Maintain social distancing between team members whenever possible.
- Team members should be provided with appropriate training for procedures such as use of appropriate PPE, donning and doffing of PPE, disinfection of operatory, and reprocessing of instruments.
- Keep track of team members that each patient had contact with while they attended the workplace.
- Plan a 48 hour and a 14 day phone follow-up with patient after treatment to ensure influenza like symptoms have not developed.

ENGINEERING CONTROL RECOMMENDATIONS

Treatment Room Recommendations for Aerosol Generating Procedures (AGPs)

- Floor to ceiling enclosure of the treatment room with a door.
- Doors should be kept closed except when entering and exiting at the beginning and end of the procedure.
- Hand hygiene facilities immediately available.
- Barriers on all frequently touch surfaces, including counter tops, in treatment room, eg. Doorknob (both sides of door), light switch, patient chair, bracket tray handles.
- Point of care sharps disposal.

- Do not store disposables, supplies, gauze, tissues, local anesthetic in open area of treatment room. Clear items not required for procedure from surfaces.
- Only one patient at a time in treatment room whenever possible, minimize visitors.
- Utilize an Airborne Infection Isolation Room(AIIR) for AGPs if available. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Finfection-control%2Fcontrol-recommendations.html
- Extraoral portable Suction Units with HEPA filters may provide additional aerosol clearance.
- In office portable HEPA air cleaning and UV systems may improve airborne contaminant removal.

Following Completion of an AGPs

After performing AGPs, and prior to leaving a treatment room, a 30 minute settling period is recommended from the last aerosol generated to allow for a majority of the airborne droplets to fall. After this time, the patient, dentist and team members can quickly exit the room and close the door.

Use Table B1 and your treatment room(s) air changes/hour to determine the length of additional time required until only 0.1% of airborne contaminants remain and the treatment room is acceptable to re-enter without an fitted N95 mask. After this time has elapsed it is safe to perform appropriate cleaning and surface disinfection before it is returned to routine use. Consult with engineer to confirm air exchanges specific to your facilities' treatment rooms.

eg: Assuming the treatment room has 6 air changes/hour, after 69 minutes less than 0.1% of airborne contamination should remain. PPE used for Standard Precautions can then be used for the decontamination process. If you do not know how many air exchanges per hour occur in your operatory, assume a 207 minute turnaround.

1. Airborne Contaminant Removal

Table B.1. Air changes/hour (ACH) and time required for airborne-contaminant removal by efficiency *

ACH § ¶	Time (mins.) required for removal 99% efficiency	Time (mins.) required for removal 99.9% efficiency
2	138	207
4	69	104
6+	46	69
8	35	52
10+	28	41
12+	23	35
15+	18	28
20	14	21
50	6	8

* This table is revised from Table S3-1 in reference 4 and has been adapted from the formula for the rate of purging airborne contaminants presented in reference 1435.

+ Denotes frequently cited ACH for patient-care areas.

§ Values were derived from the formula:

$$t2 - t1 = -[\ln(C2 / C1) / (Q / V)] \times 60, \text{ with } t1 = 0$$

where

t1 = initial timepoint in minutes
t2 = final timepoint in minutes
C1 = initial concentration of contaminant
C2 = final concentration of contaminant
C2 / C1 = 1 – (removal efficiency / 100)
Q = air flow rate in cubic feet/hour
V = room volume in cubic feet
Q / V = ACH

¶ Values apply to an empty room with no aerosol-generating source. With a person present and generating aerosol, this table would not apply. Other equations are available that include a constant generating source. However, certain diseases (e.g., infectious tuberculosis) are not likely to be aerosolized at a constant rate. The times given assume perfect mixing of the air within the space (i.e., mixing factor = 1). However, perfect mixing usually does not occur. Removal times will be longer in rooms or areas with imperfect mixing or air stagnation.[213] Caution should be exercised in using this table in such situations. For booths or other local ventilation enclosures, manufacturers' instructions should be consulted.

Table B1 - From US CDC, Guidelines for Environmental Infection Control in Health-Care Facilities (2003), Appendix B. Air

INFECTION CONTROL CONSIDERATIONS:

Non-Aerosol Generating Procedures (non-AGPs) are procedures with lower likelihood of generating aerosols. Examples of non-AGPs would be procedures such as examination, suture removal, simple extraction, incision and drainage, extraoral radiograph. The use of **enhanced** PPE is recommended for any non-AGPs:

- ASTM Level 3 mask **or** fitted N95 mask or equivalent, if available
- Face Shield or protective eyewear with side shields
- Gloves

Aerosol Generating Procedures (AGPs) can generate aerosols presenting a risk of airborne transmission of pathogens. The use of **enhanced** PPE (transmission-based precautions) is recommended for any AGPs:

- Fitted N95 mask or equivalent
- Face shield **and** protective eyewear
- Gloves
- Fluid resistant gown
- Booties
- Bouffant/surgical cap

Additional Precautions for Team Members:

- Protective covers for shoes are recommended. Shoes worn in the clinic without booties should be able to be disinfected and should not be worn outside of the workplace.
- Where possible clothes worn during procedure should be left onsite and be laundered.
- On site showers prior to departure from the workplace should be considered.

In dentistry, Aerosol Generating Procedures (AGPs) may include procedures associated with the following:

- Rotary instruments such as High Speed Handpieces, Surgical Impact Drill
- Intra-oral Ultrasonic, Air Polisher (Prophy-jet), Air abrasion
- 3-in-1 air/water syringe
- Intubation and related procedures (Manual ventilation, open endotracheal suctioning, extubation)
- Cardiopulmonary Resuscitation (CPR)
- Coughing and sneezing

It is strongly recommended to not perform Aerosol Generating Procedures (AGPs) whenever possible. Where at all possible, AGPs should be minimized, and employ:

- **Rubber dam isolation**
- **High-Volume Evacuation (HVE)**
- Pre-procedural rinse known to be effective against COVID-19 such as 1-3% Hydrogen Peroxide for 30 seconds (Chlorhexidine is not suitable)
- Hand instrumentation
- Extra-oral radiography when possible is encouraged

Table B2 – Appropriate PPE for Team Members

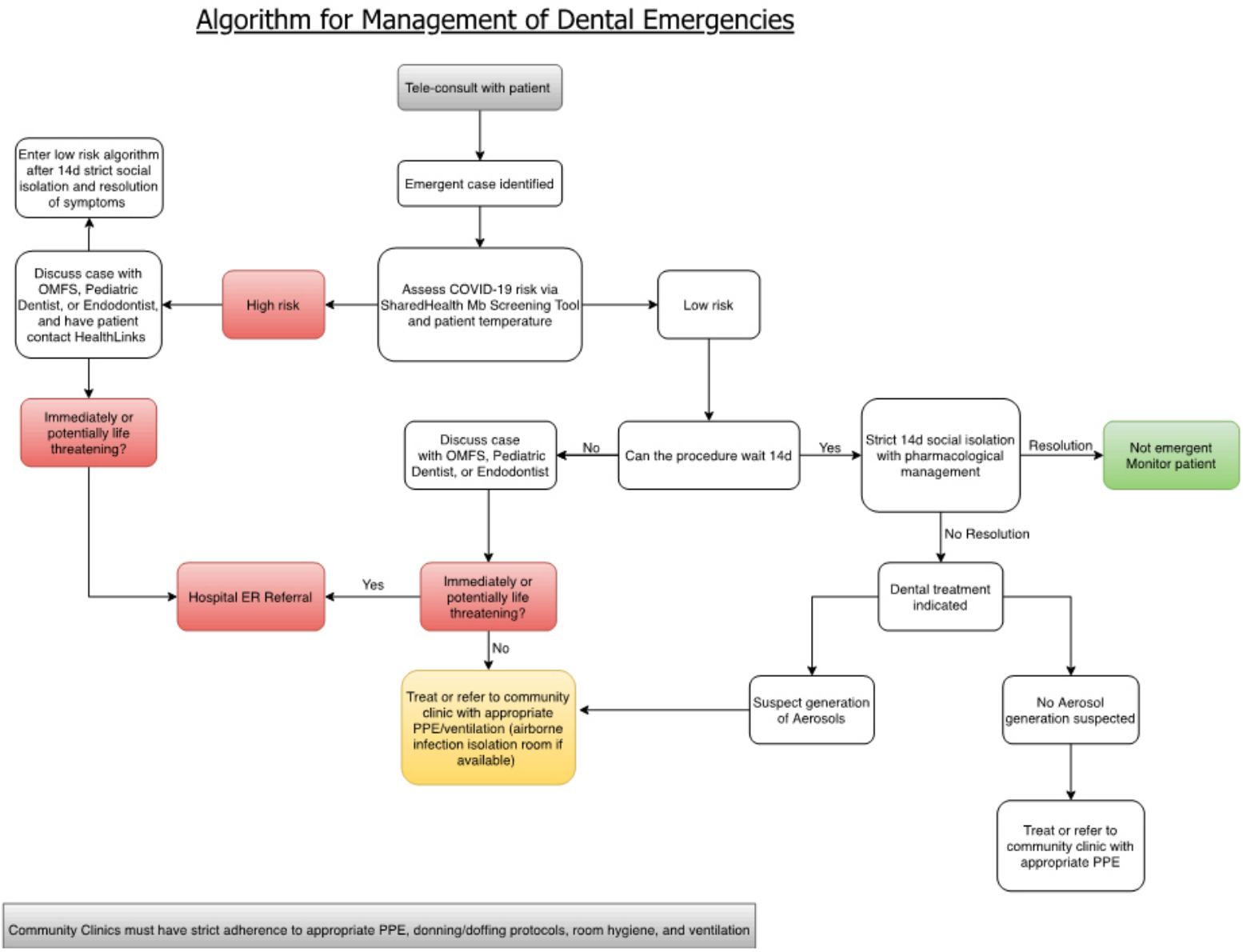
Setting	Team or Patients	Procedure/Activity	Type of PPE recommended
Non-treatment areas of Clinic	All Team members including Reception	Activities not involving patient contact	ASTM Level 1 Mask or higher
Transport	Team	Entry On-site screening Radiographs	Gown/Protective Outerwear ASTM Level 3 Mask Protective Eyewear Gloves
	Patient	Any	Provide ASTM Level 1 mask and 60-90% Alcohol Based Hand Rub (ABHR)
Treatment Room	Dentist and Dental Assistant	Non-Aerosol Generating Procedure (non-AGP) Any Treatment Room	ASTM level 3 Mask or Fitted N95 mask or equivalent, if available Face Shield or Protective Eyewear with side shields Gloves
		Aerosol Generating Procedure (AGP) enclosed Treatment Room ***See Table B1***	Fitted N95 mask or equivalent Face shield and Protective Eyewear Gloves Fluid Resistant Gown Booties Bouffant/surgical cap
	Disinfecting Treatment Rooms	AGP Wait time required as per Table B1	Standard protective outerwear ASTM Level 3 Mask Protective Eyewear Utility Gloves
		Non-AGP No wait time required	Standard protective outerwear ASTM Level 3 Mask Protective Eyewear Utility Gloves
	Reprocessing Instruments		Fluid Resistant Gown ASTM Level 1,2, or 3 Mask Protective Eyewear Utility Gloves
	Visitors	Minimize visitors in rooms for AGP	ASTM Level 1 Mask

COVID-19 SCREENING

Pre-screening phone calls, online screening, and screening upon patient arrival should be carefully followed to ensure that only asymptomatic emergent patients who pass the screening test are being considered to be seen in a community clinic. Patients should be screened according to the most recent Shared Health MB Screening Tool.
https://sharedhealthmb.ca/covid19/screening-tool/

PATIENT TRIAGE

Table B3 - Triage Algorithm:



Pre-treatment Self-Isolation - Non-test-based strategy

At first opportunity, a 14-day pre-operative patient self-isolation is recommended. Having patients self-isolate for 14 days allows for a higher chance of observing symptoms during this period. If a patient is symptom-free after 14 days of self-isolation there is a lower chance they will have the disease.

To self-isolate means that in addition to self-monitoring, you should stay home and keep away from other people. This means not attending activities or gatherings outside of the home, including work, school, university, health care and long-term care facilities, faith-based facilities (e.g., churches, mosques and synagogues), grocery stores, restaurants and shopping malls.

Shared Health MB Resource on Self-Isolation and Self-Monitoring:

Self-isolation means avoiding situations where you could infect other people. This can help prevent the spread of infections. DO NOT attend activities or gatherings where you may come in close contact with other people. This includes work, school and university, public transport (plane/bus/taxi/carpool), health-care facilities, faith-based facilities (church), grocery stores or restaurants, shopping malls, sporting events, concerts and birthday parties. *https://sharedhealthmb.ca/files/covid-19-pre-op-patient-information.pdf*

You should limit contact with people other than family members who live in your household. If you are in a home where other people have not been exposed, minimize close contact with the other members of your household by avoiding situations where you may have close contact. Ask friends to drop off groceries and supplies. You can also use a delivery or pick-up service.

You have been asked to self-isolate because you are scheduled to have dental treatment. You are therefore being asked to self-isolate and monitor for symptoms for up to 14 days.

Why am I being asked to self-isolate?

Self-isolation is used to lower the chance of spreading the illness to other people. When you are exposed to an illness, there is the time between exposure and when you start to feel sick. This is called an incubation period. There is a small chance you can spread germs in the days before you feel sick. People at high-risk of having been exposed to the illness are also asked to self- isolate for this reason.

To self-monitor for symptoms, you should:

- Take your temperature twice a day, in the morning and at nighttime, using a digital thermometer by mouth (oral). You should not eat, drink, smoke and/or chew gum 30 minutes before taking your temperature.
- Do not take acetaminophen (e.g. Tylenol®) or ibuprofen (e.g. Advil®) during the 14-day self-isolation period UNLESS your health care provider advises otherwise.
- Track and record your temperature, and any other symptom using the Temperature Self - Monitoring Form. You may have received this form from a public health nurse.
  https://manitoba.ca/asset_library/en/coronavirus/temperature.pdf

CLINIC WORKFLOW GUIDELINES

Initial Booking Protocol

- Review by Dentist to determine nature of the problem.
    - Teleconference with patient – Is it an emergency?
    - Complete the Shared health Screening tool
- Determine ability of patient to wait for a 14 day pre-operative patient self-isolation.
- Consult triage protocol using Algorithm (Table B3).
- Explanation of protocols.

Pre-Arrival

- On day of appointment, patient to retake Shared Health Screening tool and call the clinic to confirm that they have passed the screening. Also review questions pertaining to the dental emergency.
- Chart may be started and Medical History taken over the telephone.
- Patients should be reminded by phone when booking:
    - There will be limited access to restrooms in the facility.
    - Head and neck jewellery is to be removed.
    - Leave removable dental appliances at home unless required for procedure.
    - If required for the procedure, disinfect any removable dental appliances using a toothbrush, dish soap and water, and bring appliance in a sealed bag. In addition to soap and water, hydrogen peroxide can be used as well.
- Ask patient to call office from their vehicle to check in upon arrival.
- Patient and escort wait in their vehicle in parking lot until clinic is ready for them.
- Call the patient when the treatment room is ready for treatment.
- Escort discouraged from attending appointment unless necessary.
- Waiting room should not be accessible to patients and escorts.

Preparing Treatment Room

- Perform pre-operative disinfection of all surfaces.
    - MDA recommends use of a disinfectant with a Drug Identification Number (DIN) and claims of “mycobactericidal, bactericidal, fungicidal and broad spectrum virucidal”.
- Store the transport container that will be used for contaminated instruments either in an enclosed storage area in the operatory or, if that is not feasible, in the hallway at least 2 meters in the opposite direction from entry and exit by the patient. Store (utility) gloves with the transport container for use following patient care.

Entry and on-site screening

- Patient enters building via front doors, and is greeted by member of team donned with appropriate PPE.
- Patient to don ASTM Level 1 Mask, perform hand hygiene using 60-90% Alcohol Based Hand Rub(ABHR) and instruct not touch face, mouth, eyes or nose. Same for escort if they must remain in the office.
- Digital temperature taken for patient:
    - If less than 37.9 C proceed;
    - If 38 C or greater send home for isolation and patient to consider call to Health Links.
- Confirm need for radiograph:
    - If needed, proceed directly for extraoral radiograph.

    - Oral positioning device optional.
    - Level 1 mask may remain on during radiograph.
- Patient performs ABHR hand hygiene and escorted to the treatment room.
- Ensure AIIR equipment is operating as intended (if required and/or available).

Treatment

- Team members perform hand hygiene and don appropriate PPE. (see Figure B)
- Team members enter treatment room, perform hand hygiene and place gloves.
- Reconfirm medical history – past and current, review chief complaint
- A pre-procedural rinse is recommended. (eg. 1-3% Hydrogen Peroxide for 30 seconds)
- Perform examination, take necessary tests and any records required to arrive at a diagnosis.
- Discuss findings and treatment options with patient including risks, benefits, unintended consequences, costs of treatments and required follow ups if any. Answer any questions, receive informed consent.
- It is strongly recommended to not perform Aerosol Generating Procedures (AGPs) whenever possible. Where at all possible, AGPs should be minimized using rubber dam and high-volume suction.
- Carry out treatment (as per patient consent) as efficiently as possible.

Post treatment & Doffing

- Patient to don ASTM Level 1 Mask, use ABHR and instructed to not touch face, mouth, eyes or nose.
- Dental assistant places instruments into transport container and places lid. Container remains in room until sufficient time has elapsed for safe exit.
- If Aerosol Generating Procedure was performed, all remain in the treatment room with door closed for a settling period of 30 minutes from time of last aerosol produced.
- Dentist and dental assistant doff PPE except for eyewear and mask just prior to leaving room. (see Figure C)
- Patient, dentist and dental assistant leave treatment room and close door.
- Patient is escorted to exit of building.

Reprocessing

- Instrument reprocessing can be performed as usual.

Operatory Decontamination

- Use Table B1 for determining total length of time required after an AGP prior to re-entering room for decontamination.
- Standard Precautions may be followed to decontaminate the room.
- Transport container is taken to reprocessing area.
- Routine cleaning and disinfection procedures are appropriate for COVID-19 in healthcare settings.
- For aerosol generating procedures, floors may be cleaned as part of routine operatory decontamination. Use a 1:99 dilution of 5.25% bleach and tap water for this purpose as long as the floor surface can withstand bleach without damage to the finish.
- For waste removal, no special precautions are recommended.

Figure B - Donning

Personal Protective Equipment

HOW to put on Personal Protective Equipment

1. Perform HAND HYGIENE before entering a client's environment

2. Put on a long sleeved GOWN
- Opening to the back
- Tie at the neck and waste
- Cover skin and clothing

3. Put on a MASK or N95 RESPIRATOR
- Secure loops or ties
- Shape metal piece to the bridge of your nose
- For N95 Respirators perform a seal check

4. Put on EYE PROTECTION

Perform HAND HYGIENE

5. Put on GLOVES
- Pull gloves over gown cuffs

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https://sharedhealthmb.ca/files/infection-prevention-and-control-learning-booklet.pdf

Figure C - Doffing

Routine Practices

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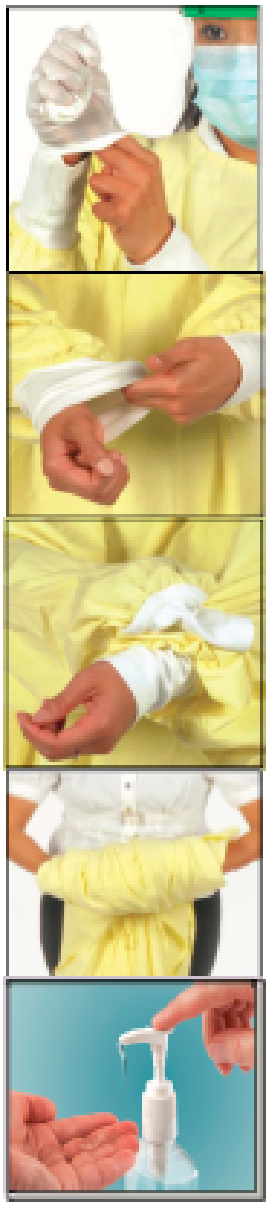
HOW to take off Personal Protective Equipment



1. Remove GLOVES
   - Grasp at the palm and remove, pulling the glove inside-out
   - Scoop under the second glove and remove
   - Place gloves in garbage
2. Remove GOWN
   - Untie neck, then waist
   - Scoop fingers under cuff; pull over hand
   - Use gown covered hand to pull gown over other hand
   - Pull gown off without touching the outside
   - Roll gown inside out
   - Place in laundry hamper or garbage as appropriate
3. Perform HAND HYGIENE

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https://sharedhealthmb.ca/files/infection-prevention-and-control-learning-booklet.pdf

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