

COVID-19 LONG-TERM CARE FACILITIES (LTCFs): AEROSOL GENERATING MEDICAL PROCEDURES (AGMPs)

Site: <ul style="list-style-type: none"> Environment <ul style="list-style-type: none"> Long-term Care (affiliate & owned and operated) Island-Wide 	Scope: <ul style="list-style-type: none"> Audience: Charge Nurse, RN/RPN, LPN, HCA, RT, Allied health, Physicians, Managers and Directors of Care (DOC), Indications: LTC Residents with Active AGMPs
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Need to know:

- Current evidence shows that COVID-19 is primarily spread by close range droplets and direct contact- the **recommended personal protective equipment (PPE) for COVID-19 continues to be droplet and contact precautions.**
- This guideline is **specific to PPE required during aerosol generating medical procedures (AGMP)** for residents who are suspected, confirmed COVID-19 positive based on the BC CDC [COVID-19 Infection Prevention and Control: Guidance for Long-Term Care and Seniors' Assisted Living Settings](#) updated May 5, 2021
- Use of a fit-tested N95 respirator is **only** required when performing AGMPs on a resident with suspected or confirmed COVID-19 ([BC CDC](#))
- AGMP therapy for **ALL residents** should be regularly reviewed and Most Responsible Providers (MRP) contacted to:
 - Determine if AGMP is medically necessary
 - Discontinue AGMPs that are not medically necessary and replace with alternate treatment
 - Identify an alternative treatment plan should the resident be suspected or confirmed COVID-19 positive
- In LTC, AGMPs on residents suspected or confirmed to have COVID-19 should only be performed when medically necessary ([BC CDC](#))

COVID-19 AGMP LTC Protocol

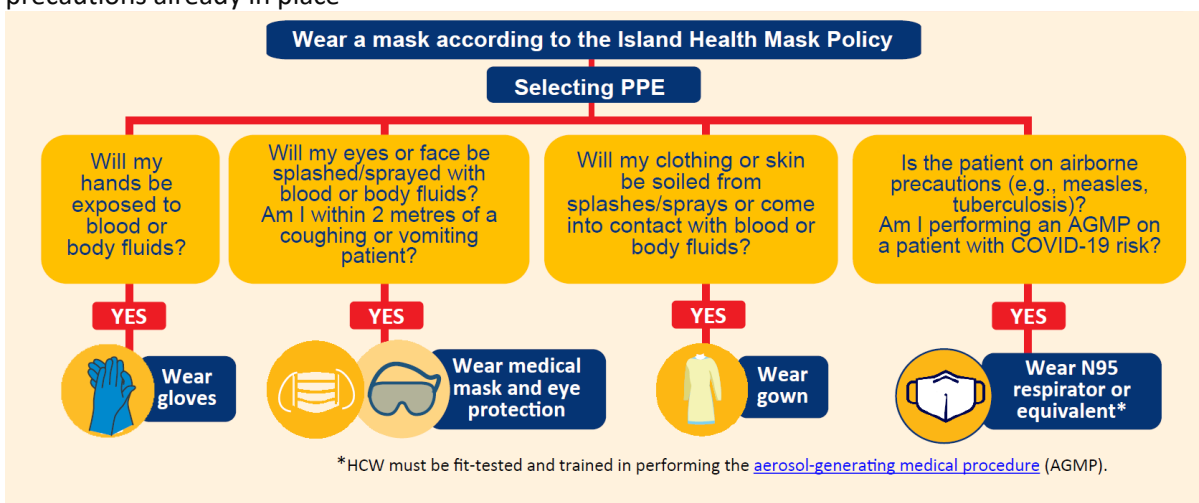
Direct care worker will:

1. Identify AGMP (BC CDC [Aerosol Generating Medical Procedures](#))

Table 1: AGMPs Requiring a N95 Respirator for Suspected or Confirmed COVID-19	
Airway suctioning (deep suction and open tracheal suctioning)	Intubation and extubation procedures (e.g. manual ventilation before intubation, disconnecting patient from ventilator, physical proning of the patient, breaking closed ventilation systems intentionally or unintentionally)
Autopsy	Mastoidectomy
Bronchoscopy and bronchoalveolar lavage	Nasopharyngeal aspirates, washes and scoping*
CPR with bag valve mask ventilation	Nebulized therapy
Continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BiPAP)	Sputum induction
Direct laryngoscopy	Tracheotomy
High flow oxygen therapy (greater than 15l/min including single and double flow O2 set ups, Optiflow and Airvo)	Tracheostomy care

*Nasopharyngeal and throat swabs can be performed using contact and droplet precautions with gloves, gown, medical-grade mask and eye protection, and don not require the use of an N95 respirator

2. Assess resident for signs and symptoms of COVID-19 based on [LTCF Response Protocol: Section B COVID-19 Symptoms and Testing](#)
3. Determine appropriate PPE based on [point of care risk assessment](#) (PCRA) and/or additional precautions already in place



Owner: COVID-19 Long-term Care Practice Approval

Date/Time Issued: 2020-APR-06 LAST UPDATED: 2021-JUN-08

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A. RESIDENT WITH NO SIGNS OR SYMPTOMS OF COVID-19:

- When resident is receiving active AGMP treatment, staff must don at minimum medical-grade mask and eye protection (face shield or goggles)
 - Please note that mask/visor combo is not appropriate for AGMPs
- Residents with AGMPs should be placed in single-person rooms whenever possible
 - In multi-bed rooms, residents must be 2 metres apart with privacy curtains closed
 - During AGMP, door to room is closed
 - Ensure the fewest number of staff necessary to perform the procedure are present
- In the event of a COVID-19 outbreak, all asymptomatic residents who have AGMPs should be reviewed by the MRP, Medical Coordinator and Medical Health Officer with the intention to hold or modify the AGMP as determined by the exposure risk

B. RESIDENT SUSPECTED, CONFIRMED COVID-19 POSITIVE:

- When resident who is suspected or confirmed COVID-19 positive AND receiving active AGMP treatment, staff must don fit-tested N95 respirator or equivalent, eye protection (e.g., face shield or goggles), gown and gloves
- AGMP should only be performed when medically necessary
- If AGMP is medically necessary then:
 - AIRBORNE PRECAUTIONS are required during treatment and until air clearance has been achieved. See [Airborne Signage](#) Appendix 1 (*negative pressure room does not apply to LTC)
 - Resident is placed in a single room with door closed
 - Ensure the fewest number of staff necessary to perform the procedure are present
- Airborne precautions be maintained until air clearance has been achieved based on the Air Changes per Hour (ACH).
 - Each facility operator should contact the FMO site engineer or FMO representative to determine the ACH.
 - If ACH cannot be determined, then a minimum of 180 minutes (3 hours) should be used to help reduce and clear the room of any air contaminants **after** the AGMP treatment ends
 - Table 1 can provide guidance regarding the length of time a room should be kept clear based on ACH

Table 1. Guidelines for Environmental Infection Control in Health-Care Facilities

ACH	Minutes required for removal efficiency [†]	
	99%	99.9%
2	138	207
4	69	104
6	46	69
12	23	35
15	18	28
20	14	21
50	6	8
400	<1	1

* This table can be used to estimate the time necessary to clear the air of airborne *Mycobacterium tuberculosis* after the source patient leaves the area or when aerosol-producing procedures are complete.
[†] Time in minutes to reduce the airborne concentration by 99% or 99.9%.

- Considerations for Respiratory Therapists for residents on mechanical ventilation:
 - Change to in-line suction catheter
 - Turn off humidifier
 - Add HMEF pre-expiratory port
 - Change to cuffed tracheostomy (MRP order required)
 - Change ventilator settings to adjust for lack of upper airway leak appropriately
 - Airborne precautions must be maintained if ventilator circuit is disconnected for any reason (intentionally or unintentionally)

Definitions

- **Aerosol Generating Medical Procedures (AGMP):** These are procedures including but not limited to: intubation and extubation, open suctioning (suctioning an ETT with a closed system is not aerosol generating), high flow O₂ (greater than 15 liters/minute (lpm) by any mechanism, standard CPR with Ventilation (hands only compression is not considered AGMP) , nebulized administration of medications, BiPAP or CPAP
- **COVID-19:** COVID-19 is the infectious disease caused by the most recently discovered novel coronavirus SARS-CoV-2.
- **Most Responsible Provider (MRP):** Physician, on-call physician (after hours) or nurse practitioner assigned to the resident
- **Most Responsible Nurse:** The RN and/or LPN assigned to care for the resident for that given shift

Persons/Groups Consulted:

Medical Health Officer, LTC Medical Director, Communicable Disease Nurse, Infection Control and Prevention, Long-term Care Executive Leadership, Long-term Care Clinical Experts, LTC COVID-19 Practice Council, Respiratory Therapists, Respiriology, Industrial Hygiene & Environment

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Related Island Health Standards & References

- BC CDC (2021) [Aerosol Generating Medical Procedures](#)
- BC CDC (2021) [COVID-19: Risk of SARS-CoV-2 Aerosol Transmission in Health-Care Settings](#)
- BCCDC (2021) [COVID-19 Infection Prevention and Control: Guidance for Long-Term Care and Seniors' Assisted Living Settings](#)
- CDC (2019). [Guidelines for Environmental Infection Control in Health-Care Facilities](#).
- Government of Canada (2021) [Using Ventilation and filtration to reduce aerosol transmission of COVID-19 in long-term care homes](#)
- Island Health (2020): [AGMPs and PPE Requirements: Patients Suspected, Confirmed or at RISK of COVID-19](#)
- Island Health (2020): [COVID-19 Response Protocol: Long-Term Care Facility \(LTCF\)](#)
- Island Health (2020): [Recommended actions for respiratory support of suspected/confirmed COVID-19 patients](#)



Appendix 1

AIRBORNE PRECAUTIONS

**Private Room
Negative Pressure**

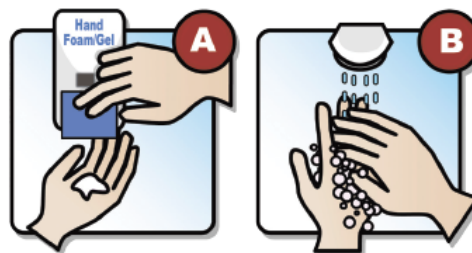
Keep door closed

**Families
and
visitors:**



**Please report
to staff before
entering**

**Clean hands
before entering and
when leaving room**



Clean hands with
A) hand foam/gel or B) soap and water

Staff:

KEEP
SIGN POSTED
UNTIL ROOM
CLEANED
HOUSEKEEPER will
remove sign after
cleaning



Required:

- Point of Care Risk Assessment
- N95 Respirator



Notify Infection Prevention & Control - Before Discontinuing Airborne Precautions

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