



Provincial Health Services Authority

Infection Prevention and Control Guidelines for Management of Surgical Patients Requiring AGMPs During the COVID-19 Pandemic

PRACTICE GUIDELINES

Summary of Changes

	NEW	Previous
BC Cancer	June 25, 2020	

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1. Introduction

1.1 Focus

The purpose of this document is to provide infection prevention and control guidance for the management of procedures done in a surgical setting at BC Cancer. This document is based on the BC Centre for Disease Control (BCCDC) and the Ministry of Health (MoH) protocol entitled "[Infection Prevention and Control \(IPC\) Protocol for Surgical Procedures during COVID-19: Adults](#)" which was developed based on the current epidemiology of COVID-19 in BC.

The guidance includes a patient screening tool and classification of patients based on a [Patient Risk Categorization](#) into GREEN, YELLOW, and RED categories. The entire surgical team including anesthetist, surgeon/radiation oncologist, radiation therapist, assistant, nurses, etc., is responsible for deciding the patient risk category together. Guidance is also included for different anesthesia approaches and for surgeries with risk of aerosolization.

Procedures performed under local or regional anesthesia should be performed using routine surgical standards along with the current Personal Protective Equipment (PPE) Framework recommendations using the following PPE: surgical mask, eye protection, gloves and gown. Procedures with general anesthesia for patients classified as GREEN will be performed under droplet and contact precautions. For cases where a patient is classified as YELLOW or RED, the risk of general anesthesia or other aerosol generating medical procedures must be discussed by the entire surgical team prior to the procedure to help guide appropriate PPE.

1.2 Health Organization Site Applicability

This document is intended for use for surgical procedures within operating rooms/procedure rooms at BC Cancer during the COVID-19 pandemic. It is meant to be used with existing operating room and infection prevention and control policies, procedures, and guidelines.

1.3 Need to Know

Staff will follow the [Application of COVID-19 PPE Framework for BC Cancer](#).

1.4 Definitions

Clearance (Settle) time refers to the amount of time required for the removal of airborne microorganisms from a given air space. The clearance time varies depending on the number of air exchanges.

Direct patient care is defined as the provision of hands-on care of a patient or activities that require interaction within 2 metres of a patient where it is not possible to distance because of the activity or the space provided.

Point of care risk assessment (PCRA) is the healthcare worker's assessment of each patient as to whether the patient has a transmissible infection and what kind of interaction the provider will have with the patient. A PCRA assesses the task, the patient and environment and is done for every patient care interaction in order to determine the risk of being exposed to an infection and to determine the appropriate infection control interventions to prevent this exposure

Suspect COVID-19 is a patient who meets the criteria for the risk category YELLOW or RED with **no** positive COVID-19 results. Please refer to [Patient Risk Category Table \(Appendix 2\)](#).

Confirmed COVID-19 is a patient with positive COVID-19 laboratory results. Further details about case management and decision to discontinue precautions should be made in consultation with public health and infection prevention and control. Please refer to http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/2019-nCoV-Interim_Guidelines.pdf

2. Practice Guidelines

2.1 Expected Patient/Client/Resident/Family Outcomes

The guiding principles are patient safety, provider safety and personal protective equipment (PPE) conservation.

2.2 Patient Assessment

All patients should be assessed over the phone for COVID-19 symptoms or exposures prior to attending a BC Cancer surgical appointment.

For scheduled procedures, the [COVID-19 Patient Assessment Form \(see Appendix 1\)](#) should be completed **48 to 72 hours** prior to scheduled procedure **over the phone**, and then **repeated in person** when the patient arrives at BC Cancer on the day of the procedure.

If patient is exhibiting symptoms consistent with COVID-19, a nasopharyngeal swab and sputum sample (if patient has productive cough) are recommended to be collected prior to the procedure.

Please note that COVID-19 testing is not recommended for patients without symptoms.

The COVID-19 Patient Assessment Form (Appendix 1) should be included in the patient chart.

Refer to [Patient Risk Category Table \(Appendix 2\)](#) to guide PPE use before, during, and after the procedure.

The clinical team will refer to the [Provincial Cancer Clinical Management Guidelines in a Pandemic Situation \(COVID-19\)](#) for decision making regarding if it is appropriate to proceed with the procedure if patient falls into YELLOW or RED category.

2.3 Pre-surgical Procedure Huddle:

- The pre-surgical huddle, when the full surgical team is engaged (anesthetist, surgeon, radiation oncologist, radiation therapist, assistant, nurses, etc.), is one of the strongest determinants for achieving the highest levels of safety and quality in surgical environments. All of the other usual elements of the surgical checklist should also be discussed at this time.
- The [Patient Risk Category \(Appendix 2\)](#) is determined based on information gathered from the [COVID-19 Patient Risk Assessment Form \(Appendix 1\)](#).
- Surgical team members must agree on the [Patient Risk Category \(Appendix 2\)](#).
- Recommended PPE to be used during the surgical procedure is provided in [Appendix 3 \(Management of Surgical Patients\)](#).
- Consider alternatives to general anesthesia whenever possible.

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- Procedures performed under local or regional anesthesia, including spinal and epidural, can be performed using routine surgical standards along with the current PPE Framework recommendations. Droplet and contact precautions should be used for patients in the YELLOW or RED categories.

2.4 Air Clearance Post Aerosol Generating Medical Procedures (AGMP):

- Refer to the provincial AGMP list available at <http://www.bccdc.ca/Health-Info-Site/Documents/Respiratory-protection-COVID19.pdf>
- Airflow considerations, including appropriate times for air clearance post-AGMP, should be made for each OR/procedure room in consultation with infection prevention and control (IPAC), and facilities maintenance and operations (FMO).
- The AGMP should be performed with the door(s) closed.
- Key elements in environmental infection prevention and control include:
 - Limiting the number of personnel in the room
 - Limiting the number of equipment in the room
 - Minimizing door openings

3. Related Document and References

1. COVID-19: Emergency Prioritization in a Pandemic Personal Protective Equipment (PPE) Allocation Framework. BCCDC & BC Ministry of Health. March 25 2020. https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/covid-19/ppe_allocation_framework_march_25_2020.pdf
2. Application of COVID-19 PPE Framework for BC Cancer. BC Cancer. June 15, 2020. [http://www.bccancer.bc.ca/health-professionals/clinical-resources/provincial-cancer-clinical-management-guidelines-in-pandemic-situation-\(covid-19\)](http://www.bccancer.bc.ca/health-professionals/clinical-resources/provincial-cancer-clinical-management-guidelines-in-pandemic-situation-(covid-19))
3. Infection Prevention and Control (IPC) Protocol for Surgical Procedures During COVID-19: Adult. http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_IPCProtocolSurgicalProceduresAdult.pdf
4. Provincial Cancer Clinical Management Guidelines in a Pandemic Situation (COVID-19). [http://www.bccancer.bc.ca/health-professionals/clinical-resources/provincial-cancer-clinical-management-guidelines-in-pandemic-situation-\(covid-19\)](http://www.bccancer.bc.ca/health-professionals/clinical-resources/provincial-cancer-clinical-management-guidelines-in-pandemic-situation-(covid-19))
5. Donning and Doffing Personal Protective Equipment (PPE)
Donning of PPE: http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_MOH_BCCDC_Donning.pdf
Doffing of PPE for Droplet and Contact Precautions: http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_MOH_BCCDC_Doffing.pdf
Doffing of PPE for Airborne Precautions (AGMP): http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_MOH_BCCDC_Doffing_AirbornePrecautions.pdf
6. Respiratory Protection for Health Care Workers Caring for Potential or Confirmed COVID-19 Patients. BCCDC & BC Ministry of Health. March 6 2020. <http://www.bccdc.ca/Health-Info-Site/Documents/Respiratory-protection-COVID19.pdf>
7. Safe Donning and Doffing of Non-Standard Personal Protective Equipment for Aerosol Generating Medical Procedures Performed on Suspect and Confirmed COVID-19 Cases. June 2, 2020. http://www.bccancer.bc.ca/health-professionals-site/Documents/BC%20Cancer_Non-standard%20PPE_Donning_Doffing.pdf

Appendix 1: COVID-19 Patient Assessment Form



Provincial Health Services Authority

Patient Information

Name: _____
 Date of Birth: _____
 Agency #: _____
 PHN: _____
 Language: _____

NURSE OR MEDICAL OFFICE ASSISTANT SCREEN:

Able to obtain patient history? Yes No If No, go to [Physician/Surgeon Screen section](#)

Does the patient have a risk factor for COVID-19 exposure? In the last 14 days has the patient:

Returned from travel outside of Canada? Yes No When? Date: _____

Been in close contact with anyone diagnosed with lab confirmed COVID-19? Yes No When? Date: _____

Lived or worked in a setting that is part of a COVID-19 outbreak? Yes No When? Date: _____

Been advised to self-isolate or quarantine at home by public health? Yes No Contact info: _____

Does the patient have new onset COVID-19 like symptoms in the last 14 days?

48 to 72 hours prior: Date/Time: _____ **Day of procedure:** Date/Time: _____

Fever	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Fever	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Cough	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Cough	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Shortness of breath	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Shortness of breath	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Diarrhea	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Diarrhea	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Nausea and/or vomiting	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Nausea and/or vomiting	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Headache	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Headache	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Runny nose/nasal congestion	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Runny nose/nasal congestion	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sore throat or painful swallowing	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Sore throat or painful swallowing	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Loss of sense of smell	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Loss of sense of smell	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Loss of appetite	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Loss of appetite	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Chills	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Chills	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Muscle aches	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Muscle aches	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Fatigue	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Fatigue	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Screened by:

Signature:

Screened by:

Signature:

PHYSICIAN/SURGEON SCREEN:

COVID-19 NP test performed Yes No Date: _____
Result: Negative Positive

If test has not been performed, do you recommend testing patient? Yes No Reason: _____

Unable to perform swab? Yes No Reason: _____

Screened by: _____ **Signature:** _____ **Date/Time:** _____

FINAL ASSESSMENT:

COVID-19 risk factor (travel, contact, outbreak)? Yes No Unknown

COVID-19 like symptoms that cannot be explained by another medical or surgical diagnosis? Yes No Unknown

COVID-19 test result? Yes No Unknown N/A

Assessed by: _____ **Signature:** _____ **Date/Time:** _____

Appendix 2: Patient Risk Category Table during surgical procedures when an AGMP[‡] is performed

COVID-19 Risk Factors	COVID-19 Symptoms	COVID -19 Test Results*	COVID-19 Risk Category	Precautions Required
NO	NO	NOT REQUIRED	GREEN	DROPLET and CONTACT
NO	NO	NEGATIVE**	GREEN	DROPLET and CONTACT
YES	NO	NEGATIVE**	GREEN	DROPLET and CONTACT
NO	UNKNOWN	NEGATIVE	GREEN	DROPLET and CONTACT
NO	YES	NEGATIVE	GREEN	DROPLET and CONTACT
UNKNOWN	YES	NEGATIVE	YELLOW	AIRBORNE, DROPLET and CONTACT
YES	YES	NEGATIVE	YELLOW	AIRBORNE, DROPLET and CONTACT
UNKNOWN	UNKNOWN	UNKNOWN/PENDING	YELLOW	AIRBORNE, DROPLET and CONTACT
YES	NO	UNKNOWN/PENDING	RED	AIRBORNE, DROPLET and CONTACT
NO	YES	UNKNOWN/PENDING	RED	AIRBORNE, DROPLET and CONTACT
YES	YES	UNKNOWN/PENDING	RED	AIRBORNE, DROPLET and CONTACT
-	-	POSITIVE	RED	AIRBORNE, DROPLET and CONTACT

[‡] Procedures that do not involve aerosol generation (i.e. non-AGMP) can be performed using routine surgical standards along with the current PPE Framework recommendations

* Interpret the negative test in terms of the clinical context. If there is confirmed COVID-19 exposure and a strong clinical suspicion of COVID-19 despite negative testing, treat as RED.

** Please note that COVID-19 testing is not recommended for patients without symptoms unless directed by Public Health.

Confirm PATIENT RISK CATEGORY (Circle One):

GREEN	YELLOW	RED
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Please note that the entire surgical team is responsible for deciding the Patient Risk Category together.

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Appendix 3: Management of Surgical Patients When an AGMP[‡] is Performed

Infection Prevention and Control Risk Category			
	Green	Yellow	Red
Intubation or other AGMP <i>Limit personnel in the OR to anesthetist, RN +/- AA</i>	<ul style="list-style-type: none"> Implement DROPLET and CONTACT precautions. Post additional precaution signs and cleaning communication tool. Remove all unnecessary items from the room. Drape items that cannot be removed with clean sheet. 	<ul style="list-style-type: none"> Implement AIRBORNE, DROPLET and CONTACT precautions. Post additional precaution signs and cleaning communication tool. Remove all unnecessary items from the room. Drape items that cannot be removed with clean sheet. 	<ul style="list-style-type: none"> Implement AIRBORNE, DROPLET and CONTACT precautions. Post additional precaution signs and cleaning communication tool. Remove all unnecessary items from the room. Drape items that cannot be removed with clean sheet.
Surgical Team	<ul style="list-style-type: none"> All staff in OR don: <ul style="list-style-type: none"> Surgical mask Eye protection Gown/Gloves 	<ul style="list-style-type: none"> All staff in OR don: <ul style="list-style-type: none"> fit-tested N95 respirator Eye protection Gown/Gloves 	<ul style="list-style-type: none"> All staff in OR don: <ul style="list-style-type: none"> fit-tested N95 respirator Eye protection Gown/Gloves
Extubation Team <i>Limit personnel in the OR to anesthetist, RN +/- AA</i>	<ul style="list-style-type: none"> All staff in OR don: <ul style="list-style-type: none"> Surgical mask Eye protection Gown/Gloves 	<ul style="list-style-type: none"> All staff in OR don: <ul style="list-style-type: none"> fit-tested N95 respirator Eye protection Gown/Gloves 	<ul style="list-style-type: none"> All staff in OR don: <ul style="list-style-type: none"> fit-tested N95 respirator Eye protection Gown/Gloves

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IPAC Guidelines for Managing Surgical Patients requiring AGMP during COVID-19 Pandemic

Phase 1 Recovery	<ul style="list-style-type: none"> Move patient to post-anesthesia recovery (PAR) following extubation 	<ul style="list-style-type: none"> Move patient to post-anesthesia recovery (PAR) once clearance time has elapsed Once in PAR, use Droplet and Contact Precautions 	<ul style="list-style-type: none"> Recover in the OR until ready to move to appropriate isolation room Patient may be moved to appropriate isolation room after clearance time is complete.
Post Procedure	<ul style="list-style-type: none"> Doff PPE per BCCDC COVID-19 standards. 	<ul style="list-style-type: none"> Doff PPE per BCCDC COVID-19 standards. Doff N95 respirator and eye protection outside the room. Document on cleaning communication tool when clearance time completed. 	<ul style="list-style-type: none"> Doff PPE per BCCDC COVID-19 standards. Doff N95 respirator and eye protection outside the room. Document on cleaning communication tool when clearance time completed.
When to clean the room?	<ul style="list-style-type: none"> No need to wait for clearance time to begin cleaning 	<ul style="list-style-type: none"> Housekeeping will perform additional precaution discharge clean once clearance time is complete. 	<ul style="list-style-type: none"> Housekeeping will perform additional precaution discharge clean once clearance time is complete.
PPE for Cleaning and Disinfection Staff	<ul style="list-style-type: none"> All cleaning staff in OR don: <ul style="list-style-type: none"> Surgical mask Eye protection Gown/Gloves 	<ul style="list-style-type: none"> All cleaning staff in OR don: <ul style="list-style-type: none"> Surgical mask Eye protection Gown/Gloves 	<ul style="list-style-type: none"> All cleaning staff in OR don: <ul style="list-style-type: none"> Surgical mask Eye protection Gown/Gloves

‡ Procedures that do not involve aerosol generation (i.e. non-AGMP) can be performed using routine surgical standards along with the current PPE Framework recommendations
 - Abbreviations used: RN: registered nurse, AA: anesthetist assistant

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