COVID-19 Risk Stratification for Surgical Patients

Note: latest updates will appear in blue

Introduction

The current prevalence of COVID-19 infection in Manitoba remains low. We are now in a position to resume a more normal volume of operative procedures in order to deal with the backlog of cases that the recent restrictions in clinical activity created.

This may be a time-limited opportunity as the incidence of disease may increase in fall.

Based on the incidence characteristics and prevalence of COVID-19, the current protocol for elective surgical patients in the province requiring a 14-day period of self-isolation is no longer necessary, in terms of decreasing the risk of acquiring the disease. In addition, the 14-day wait period imposes undue additional social and economic burdens on patients whose lives have undoubtedly been affected by the recent public health restrictions.

Based on the current epidemiology of COVID-19 in Manitoba, patients who are scheduled for elective surgery and who do not have risk factors for/or symptoms of COVID-19 (based on the most up-to-date screening tool used screening patients presenting to emergency departments) should not be considered suspect cases.

The screening questions (also included in Figure 1) along with an optional COVID-19 polymerase chain reaction (PCR) test can help classify patients into Red, Orange and Green categories (see Figure 2).

For identical reasons, the classification of emergent or urgent surgical patients using the same combination of risk factors, symptoms, and optional pre-op PCR testing should be applied.

NOTE: Pre-op PCR testing for COVID-19 is neither necessary nor sufficient to classify patients on its own. The entire surgical team (including the anesthesiologist, surgeon, and nurses) are responsible for deciding the patient risk category together.

In addition, under this risk stratification system the requirement for 30-minute wait times post intubation and extubation will be eliminated in patients categorized as Green based on preoperative screening (Figure 1).

NOTE: Patients who are COVID-19 positive or who are unable to give a reliable response to the screening questions are classified as red and orange respectively (see below). For these red and orange patients, a reduction of the current 30-minute wait times post intubation and extubation to a wait time of 15 minutes is sufficient, based on air exchange kinetics in the operating room.
Pathway

With the current epidemiology of COVID-19 in Manitoba, people who present for elective, urgent or emergent surgery and who screen negative on the questions in Figure 1 should not be considered suspect cases. These patients will follow the ‘Green’ pathway (Figure 2).

Patients who are unable to give a reliable history to the screening questions, will follow the ‘Orange’ pathway (Figure 2).

Patients who are known to have active infection with the COVID-19 virus will follow the ‘Red’ pathway (Figure 2).

Based on the current evidence available, specifically, that the risk of nosocomial transmission of COVID-19 to HCWs in the operating room is exceedingly unlikely, the 30-minute wait post intubation and extubation be removed for all ‘Green’ patients in the operating room. Patients who are known to have infection with the COVID-19 virus (‘Red’), or who are highly suspect, or cannot give a reliable history (‘Orange’), the wait time post intubation/extubation is now 15 minutes.

For all patients who require elective, urgent or emergent surgery, the primary surgical team should consider ordering a COVID-19 PCR test. This test can be used in addition to the screening questions, but will not be used in isolation (e.g. a negative test in a person who cannot give reliable history is not sufficient for the patient to be considered ‘green’). NOTE: This requirement can and will be re-visited depending on the incidence of positive tests in this population.

This strategy will be revisited and revised if necessary in consultation with Shared Health Clinical Leadership, Public Health and Infection Prevention and Control if/when the epidemiology of the disease changes or new information becomes available.

In all circumstances, physical distancing (6 feet/2 metres) and hand hygiene will be adhered to wherever possible.
Figure 1: Screening questions for infection with the COVID-19 virus

**EXPOSURE** - In the past 14 days have you:
- Returned from travel outside of Manitoba (excluding travel to Western Canada, the Territories or Ontario west of Terrace Bay); **OR**
- Had exposure to a confirmed case of infection with the COVID-19 virus (confirm setting and how individual was notified); **OR**
- Had exposure in laboratory working directly with biological specimens; AND/OR

**SYMPTOMS** - new onset of:
**ONE of:**
- fever > 38°C or subjective fever/chills
- cough
- sore throat / hoarse voice
- shortness of breath / breathing difficulties
- loss of taste or smell
- vomiting or diarrhea for more than 24 hours

**TWO OR MORE of:**
- runny nose
- muscle aches
- fatigue
- conjunctivitis (pink eye)
- headache
- skin rash of unknown cause
- nausea or loss of appetite
- poor feeding if an infant

Patients unable to provide a reliable history are to be placed in ‘Orange’ category (Droplet/Contact Precautions) until their status can be clarified.

*Criteria are intended to supplement clinical judgement, not supersede it.*
## SARS-CoV-2 Risk Category

<table>
<thead>
<tr>
<th>SARS-CoV-2 Risk Category</th>
<th>Green</th>
<th>Orange</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intubation Team</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Recommended PPE</strong></td>
<td>All staff in OR suite don:</td>
<td>All staff in OR suite don:</td>
<td>All staff in OR suite don:</td>
</tr>
<tr>
<td></td>
<td>• PPE as per OR protocol pre-COVID-19</td>
<td>• fit-tested N95 respirator OR half mask respirator</td>
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<tr>
<td></td>
<td>• Eye protection</td>
<td>• OR to anesthesiologist, RN +/- ACA</td>
<td>• OR to anesthesiologist, RN +/- ACA</td>
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<td></td>
<td>• Gown/Gloves</td>
<td>• 15-minute delay before surgical team enters, except for unstable patient.</td>
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<td></td>
<td>• Limit personnel in the OR to anesthesiologist, RN +/- ACA</td>
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<tr>
<td><strong>Surgical Team</strong></td>
<td>All staff in OR suite don:</td>
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<td>All staff in OR suite don:</td>
</tr>
<tr>
<td></td>
<td>• PPE as per OR protocol pre-COVID-19</td>
<td>• Regular surgical mask unless unstable patient or upper aerodigestive tract procedure.</td>
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<td></td>
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<td></td>
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<tr>
<td><strong>Extubation Team</strong></td>
<td>All staff in OR suite don:</td>
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<tr>
<td><strong>Phase 1 Recovery</strong></td>
<td>In the post-anesthesia care unit (PACU)</td>
<td>In the post-anesthesia care unit (PACU) using droplet/contact precautions</td>
<td>Recover in the OR suite until ready to move to appropriate isolation room.</td>
</tr>
<tr>
<td></td>
<td>No need to delay moving patient to PACU following extubation.</td>
<td>Patient may be moved to PACU after 15-minute wait.</td>
<td></td>
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</tbody>
</table>
15. https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html.
Change log

Sept. 22, 2020:

- Removed specific guidance for Oral and Dental Surgery patients. Guidance for those patients is now the same as for any other patient
- Updated COVID-19 symptoms
- Created change log