



CTU COVID Updates

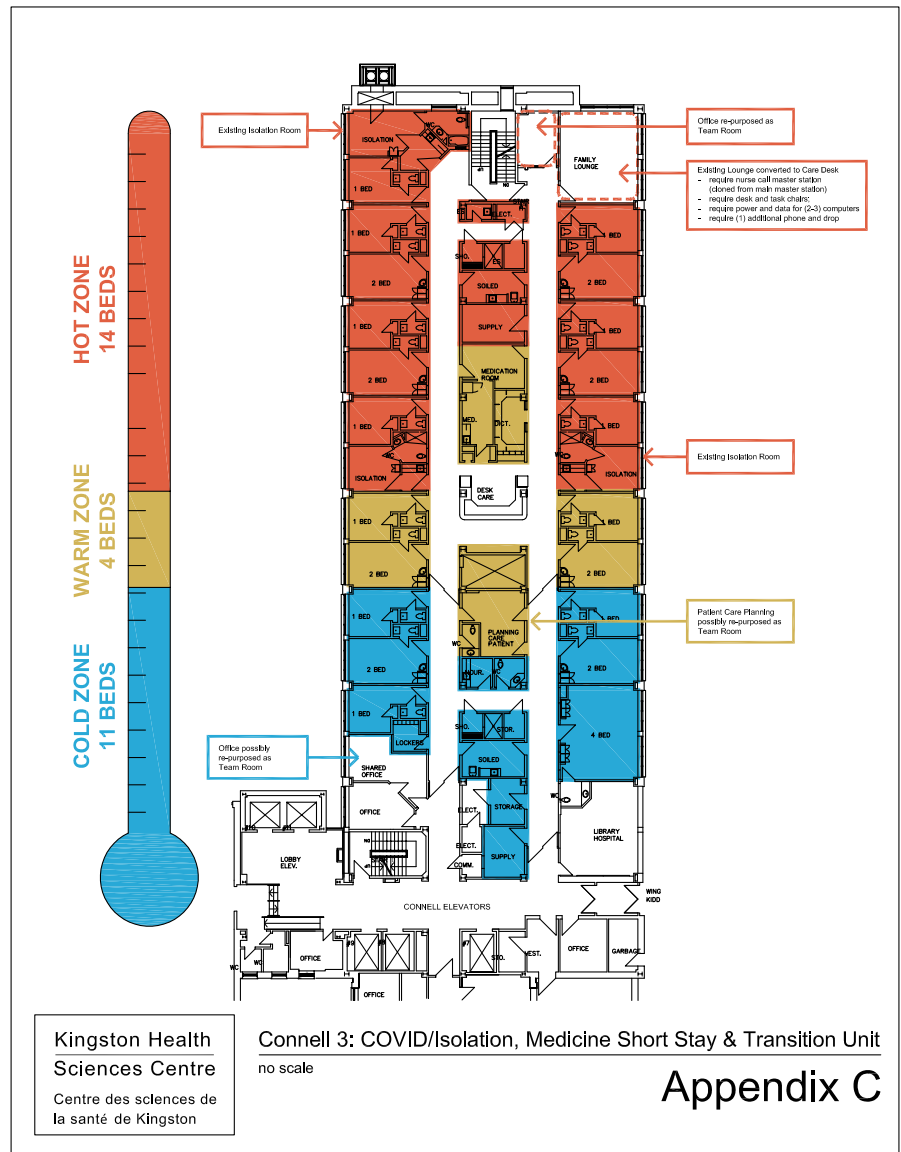
KHSC intranet for regular updates:

<https://khscnow.kingstonhsc.ca/ipc/covid-19-ipac-information>
<https://khscnow.kingstonhsc.ca/ipc/covid-19-ipac-information>

(on KHSC website→Clinical Resources→Infection, Prevention and Control→COVID-19 IPAC Information)

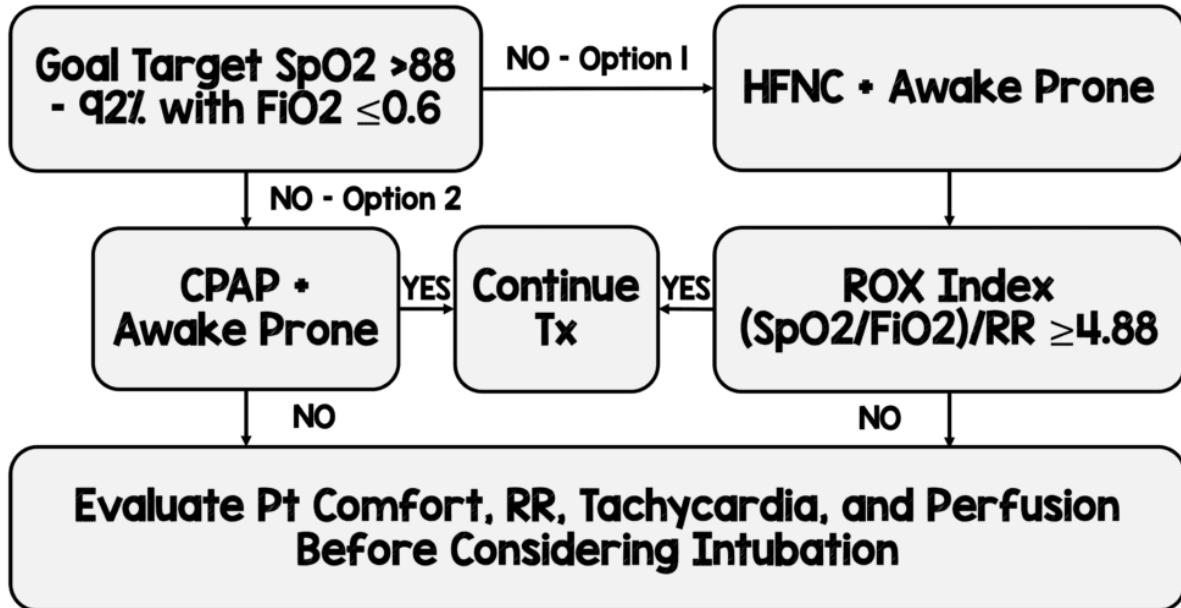
- **COVID Medicine Admissions:**
 - **Ward patients:**
 - All patients requiring admission to Internal Medicine with confirmed or query COVID-19 should be admitted to the CTU-E team (on <5L 02) on Connell-3 (C3)
 - Specifically, patients with Resp symptoms +/- fever or higher probability of COVID-19
 - Those with low probability of COVID-19 can be admitted to any CTU service and any Medicine ward, even with a pending swab
 - Patients with COVID-19 and other needs such as telemetry will be admitted to the appropriate ward (no telemetry at the moment on C3)
 - For patients on C3, once a COVID-19 swab is negative, if patient is anticipated to be a long stay, then the patient should be transferred to another CTU team and off of C3 (C3 Charge Nurse will help facilitate)
 - **C3 Organization:**
 - C3 is divided into 3 zones:
 - Hot (COVID +)
 - 1-2 Hot beds are on HOLD for possible COVID+ patients from outside centres. If these are full , admitting has a process for rapidly making a C3 Hot bed.
 - Warm (?COVID)
 - Cold (COVID-)

- Depending on bed needs, once patients have had COVID r/o they may be moved to another ward or another part of C3 to make room for subsequent patients
- Please see architectural drawing below for C3 zones



- **ICU level patients:**
 - Any patient that is COVID+ >5L NP O2 should be admitted to D4ICU under CTU-E
 - Recommendations regarding avoiding HFNC and NIPPV are evolving and there has been a move away from early intubation
 - *NB:* NIPPV and HFNC are considered AGMP and these patients require a negative pressure room
 - D4 beds 10 & 16 are negative pressure
 - Low threshold to consult K2ICU
 - Patients admitted to D4ICU with ?COVID or COVID+ but with other critical care needs (sepsis/GIB) should be admitted to CTU A-D+G

Suggested Algorithm for Managing Hypoxia in COVID-19 patients



<https://rebelem/covid-19-hypoexemia-a-better-and-still-safe-way/>

- **COVID-19 Entrypoint Admission Orders**
 - Please use the available standardized order sets to accompany your D4ICU or Medicine Admission orders
 - *NB:* Dexamethasone is indicated for any patients with COVID-19 that require oxygen therapy (Dex 6mg PO/IV daily x10d) –(not on order set at the time of writing.)

- **Discharge Template**
 - A discharge template for COVID patients exists with public health guidelines regarding self-isolation, etc.

- **COVID Transfers To KGH:**
 - KGH is the tertiary care site for all COVID+ or ?COVID patients from WAHA (Moosefactory). Please accept if you are asked for a transfer
 - Any patient who is COVID+ or ?COVID from another institution (inter-hospital transfer) will need admission directly to C3 (assuming ward appropriate)
 - Call OM at 7021
 - C3 should have 1-2 'hot' beds on hold
 - If no empty 'hot' bed, OM has protocol to quickly make bed available on C3
 - If no ward beds, or unclear status (i.e. D4 vs ward) another option may be bringing patient through section C of ED. Call charge nurse in ED 7003

- **COVID Swab for Transfers OUT of KGH:**
 - Be aware that if you are discharging a patient to another hospital (including PCH), NH, RH they will need a COVID swab result within 24hrs of discharge
 - Nurses have a directive to do this , no medical order required
 - Some centres are 'swab & send', others require a negative result prior to transfer

- **COVID-19 Medicine Expansion Plans**
 - Phase I
 - <20 COVID-19 patients on C3:
 - CTU-E manages COVID ward , CTU A-D&G function as usual
 - Phase II
 - >20 COVID-19 patients on C3:
 - CTU-E manages ½ ward
 - New CTU activation (CTU-I) with GIM Attending on 1 week rotations. GIM Attending pulled from CTU A-D&G
 - DOM back-up schedule activation, DOM Attending to cover empty CTU A-D&G
 - Phase III
 - >35 COVID-19 patients/C3 at capacity:
 - K10 becomes 2nd COVID unit
 - New CTU activation (CTU-J) to manage K10
 - GIM Attendings scheduled to be on CTU cover COVID teams, DOM back-up schedule used for usual CTU teams
 - ICU assumes management of D4ICU



Reference Documents:

Ontario 

Case Definition – Coronavirus Disease (COVID-19)

These case definitions* are for surveillance purposes and they are current as of August 6 2020. They are not intended to replace clinical or public health practitioner judgment in individual patient assessment and management.

A. Probable Case

- A. A person (**who has not had a laboratory test**) with symptoms compatible with COVID-19 (see footnote 8) **AND**:
- a. Traveled to an affected area (including inside of Canada, see footnote 9) in the 14 days prior to symptom onset; **OR**
 - b. Close contact with a confirmed case of COVID-19 (see footnote 2); **OR**
 - c. Lived in or worked in a facility known to be experiencing an outbreak of COVID-19 (e.g., long-term care, prison)
- OR**
- B. A person with symptoms compatible with COVID-19 (see footnote 8) **AND** In whom laboratory diagnosis of COVID-19 is inconclusive (see footnotes 4,5)

B. Presumptive Confirmed Case

- Based on the evolving situation with COVID-19 there is no longer a Presumptive Confirmed Case definition for surveillance purposes

C. Confirmed Case

A person with laboratory confirmation of SARS-CoV-2 infection using a validated assay, consisting of positive nucleic acid amplification test (NAAT; e.g. real-time PCR or nucleic acid sequencing) on at least one specific genome target. Laboratory confirmation is performed at reference laboratories (e.g., The National Microbiology Laboratory or Public Health Ontario Laboratory) or non-reference laboratories (e.g., hospital or community laboratories) (see footnote 7).

OR

A person with a positive detection of serum/plasma immunoglobulin G (IgG) antibodies to SARS-CoV-2 from a laboratory in Ontario that is licensed to conduct serology testing for clinical purposes (see footnote 10).

Ministry of Health

COVID-19 Reference Document for Symptoms

Version 7.0 – September 21, 2020

This document outlines the symptoms, signs, and clinical features which have been most commonly associated with COVID-19. This information is current as of September 21, 2020 and may be updated as the situation on COVID-19 continues to evolve. If there is a discrepancy between this list and other guidance, this list should be considered as the most up to date.

When assessing for the symptoms below the focus should be on evaluating if they are **new, worsening, or different from an individual's baseline health status (usual state)**. Symptoms should not be chronic or related to other known causes or conditions (see examples below).

Common symptoms of COVID-19 include:

- **Fever** (temperature of 37.8°C/100.0°F or greater)
- **Cough** (that is new or worsening (e.g. continuous, more than usual if chronic cough) including croup (barking cough, making a whistling noise when breathing)
 - *Not related to other known causes or conditions (e.g., chronic obstructive pulmonary disease)*
- **Shortness of breath** (dyspnea, out of breath, unable to breathe deeply, wheeze, that is worse than usual if chronically short of breath)
 - *Not related to other known causes or conditions (e.g., chronic heart failure, asthma, chronic obstructive pulmonary disease)*

Other symptoms of COVID-19 can include:

- **Sore throat** (painful swallowing or difficulty swallowing)
 - *Not related to other known causes or conditions (e.g., post nasal drip, gastroesophageal reflux)*
- **Rhinorrhea** (runny nose)
 - *Not related to other known causes or conditions (e.g., returning inside from the cold, chronic sinusitis unchanged from baseline)*
- **Nasal congestion** (stuffy nose)
 - *Not related to other known causes or conditions (e.g., seasonal allergies)*

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Reviewed October 2020

- **New olfactory or taste disorder** (decrease or loss of smell or taste)
 - *Not related to other known causes or conditions (e.g., nasal polyps, allergies, neurological disorders)*
- **Nausea and/or vomiting**
 - *Not related to other known causes or conditions (e.g. transient vomiting due to anxiety in children, chronic vestibular dysfunction)*
- **Diarrhea**
 - *Not related to other known causes or conditions (e.g., Irritable bowel syndrome, inflammatory bowel disease, side effect of medication)*
- **Abdominal pain** that is persistent or ongoing
 - *Not related to other known causes or conditions (e.g., menstrual cramps, gastroesophageal reflux disease)*

Atypical signs and symptoms of COVID-19 should be considered, particularly in infants and children, older persons, and people living with a developmental disability.

Atypical symptoms can include:

- **Chills**
- **Headache** that is new and persistent, unusual, unexplained, or long-lasting
 - *Not related to other known causes or conditions (e.g., tension-type headaches, chronic migraines)*
- **Conjunctivitis** (pink eye)
 - *Not related to other known causes or conditions (e.g., blepharitis, recurrent styes)*
- **Fatigue, lethargy, or malaise** (general feeling of being unwell, lack of energy, extreme tiredness) that is unusual or unexplained
 - *Not related to other known causes or conditions (e.g., depression, insomnia, thyroid dysfunction, anemia, malignancy)*
- **Myalgias** (muscle aches and pain) that are unexplained, unusual, or long-lasting
 - *Not related to other known causes or conditions (e.g., fibromyalgia)*
- **Decreased or lack of appetite**
 - *For young children and not related to other known causes or conditions (e.g., anxiety, constipation)*

Atypical signs should be based on an assessment by a Health Care Provider, should not be explained by other known causes or conditions, and can include:

- **New or unusual exacerbation of chronic conditions** (e.g. chronic lung diseases such as asthma, emphysema, or chronic obstructive pulmonary disorder)
- **Tachycardia** (fast heart rate), including age specific tachycardia for children
 - *Not related to other known causes or conditions (e.g., atrial fibrillation)*
- **Low blood pressure** for age
- **Hypoxia** (i.e. oxygen saturation less than 92%)
 - *Not related to other known causes or conditions (e.g., chronic obstructive pulmonary disorder)*
- **Difficulty feeding in infants**
 - *Not related to other known causes or conditions (e.g., gastroesophageal reflux disease, cleft palate)*
- **Delirium** (acutely altered mental status and inattention)
 - *Not related to other known causes or conditions (urinary tract infection, substance-related such as alcohol withdrawal, medication induced)*
- **Increased number of falls** in older persons
- **Acute functional decline** (a sudden change in ability to function compared to baseline)
 - *Not related to other known causes or conditions (e.g. gradual decline over months due to a neurological disorder such as dementia or Parkinson's disease)*

Clinical features of COVID-19 that can be diagnosed by a health care provider include:

- Clinical or radiological evidence of pneumonia
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Multisystem Inflammatory Syndrome in Children and Adolescents (MIS-C) less than 19 years old

Information on this syndrome and its temporal association with COVID-19 is still emerging and may evolve over time. An assessment for MIS-C should be done by a Health Care Provider. Please see the [World Health Organization \(WHO\) Case Definition](#) or the [Canadian Paediatric Surveillance Program \(CPSP\) Case Definition](#) for diagnostic criteria.

The [WHO MIS-C preliminary case definition](#):

- Persistent fever for 3 or more days

AND two or more of the following:

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- Rash or bilateral non-purulent conjunctivitis or muco-cutaneous inflammation signs (oral, hands, or feet).
- Hypotension or shock.
- Features of myocardial dysfunction, pericarditis, valvulitis, or coronary abnormalities (including ECHO findings or elevated Troponin/NT-proBNP).
- Evidence of coagulopathy (by prolonged PT, PTT, elevated d-Dimers).
- Acute gastrointestinal symptoms (diarrhea, vomiting, or abdominal pain).

AND

- Elevated markers of inflammation such as ESR, C-reactive protein, or procalcitonin.

AND

- No other obvious microbial cause of inflammation, including bacterial sepsis, staphylococcal or streptococcal shock syndromes.

AND

- Evidence of COVID-19 (RT-PCR, antigen test or serology positive), or likely contact with patients with COVID-19
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