



# COVID-19 UPDATE: ASK EMERGENCY AND CRITICAL CARE SPECIALISTS

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Webinar recording: **March 26, 2020**

URL: <http://bit.ly/2020-03-26-UBCCPD-Webinar1-COVID19>

**Disclaimer:** Information on COVID-19 is changing rapidly and much of the research is preliminary. The protocols are suggestions only; they do not take the place of clinical judgement. Please check with your own health authorities and local medical health officers as direction, policies, and prevalence vary between regions.

These answers were topical and up-to-date as of the session, but recommendations are changing frequently. This summary was prepared by Dr. Simon Moore and the speakers have endorsed the release of this document.

**Providers can call the ROSe intensivists for assistance 24/7 at 1-888-918-0626, or visit [rosetelehealth.com](http://rosetelehealth.com). Further virtual supports can be found through [rrccbc.ca](http://rrccbc.ca).**

## Webinar Summary

Could it be COVID? (Depends on where you live and your local prevalence)

- In New York, COVID is now endemic and seen in almost all patients. Initially the ED had a COVID side & non-COVID side but now all patients seem to have it.
- E.g. patients arrive with a stroke and the Head/Neck CT will catch some of the lung apices and have findings consistent with a COVID pneumonia.
- Numbers and prevalence are very different in Canada and our numbers remain very low. The numbers of non-COVID patients are the vast majority of patients we see.

## Clues for COVID: lymphopenia, hypoxia not commensurate with dyspnea, up to 20%: GI symptoms only

- Though the disease is heterogeneous, patients often have similar pattern: lymphopenia in 83.2%, x-ray findings of bilateral interstitial pneumonia, hypoxia not commensurate with dyspnea, “happy hypoxemics” (e.g. looking well, speaking full sentences and having conversations, SpO<sub>2</sub> of 89%)
- Other lab findings: some have LDH > 250. Procalcitonin is elevated in < 5% of cases. Some have transaminitis.
- Myocarditis can occur and should prompt an early ICU referral.
- Discovery of other infections (e.g. Group A Strep, Influenza, RSV) does not rule out covid; superinfection can occur.

## Discharge home? If they have mild symptoms consider an ambulatory SpO<sub>2</sub> before discharge

- Initially patients present with dyspnea on approximately day 5, along with body aches, myalgias, and normal oxygen saturation.
- Patients are generally told they may do well at home and should return to ED if their dyspnea worsens.

## Admit? These criteria suggest admission is warranted

- Needing O<sub>2</sub> to maintain saturations > 92% at rest and when ambulatory. Patients can be admitted with minimal O<sub>2</sub> requirements then become critically ill within days.
- Oxygen > 6 L by nasal prongs (consult critical care)
- Dyspneic
- Abnormal vital signs especially elevated respiratory rate
- Age over 65
- Comorbid eg. Cardiac, lung disease
- Social e.g. elderly in house, live in close proximity to others
- Shock, altered LOC, respiratory distress
- Poor prognostic indicators (e.g. elevated d-dimer, elevated age, multiple pressors)
- Have advance directive care discussions early. Frailty score can be used to guide advance directive discussions

## Diagnosis by scan? CT can diagnose but is not widely used

- CT can diagnose COVID pneumonia but in Vancouver is only being done if required to look for another diagnosis or to change management.
- Another use of CT is to look for asymptomatic COVID pneumonia prior to an elective abdominal surgery (not recommended anymore)
- Look for other causes of hypoxemic respiratory failure. POCUS may play a role in differentiating. Patients may have interstitial lung disease, COPD exacerbations, pneumonia, and pulmonary edema.

## Intubation required? Consider early intubation by the most experienced intubator

- Patients shouldn't be preoxygenated with bag-valve-mask (high risk of aerosolization), even though they desaturate deeply within seconds.
- Apneic oxygenation still recommended.
- Another resource with step-by-step intubation procedure:  
[https://www.bcemergencynetwork.ca/clinical\\_resource/covid-19-patients-protected-controlled-intubation-cardiac-arrest/](https://www.bcemergencynetwork.ca/clinical_resource/covid-19-patients-protected-controlled-intubation-cardiac-arrest/)
- Recommendations have now changed to avoid early intubation if at all possible.
- Counterargument to early intubation: first try other maneuvers to recruit alveoli before intubating? (e.g. prone positioning, frequent repositioning) and then CPAP - source:  
<https://emcrit.org/emcrit/stop-kneejerk-intubation/> - see discussion in comments

## Treatment is supportive; evidence does not support steroids and antivirals

- Antiviral medication should be used in the context of a RCT.
- Avoid steroids unless indicated for other reasons e.g. asthma, COPD
- Do not over fluid resuscitate patients with viral pneumonia; 30 cc/kg of fluid is likely too much. Careful assessment of patient fluid status is required as with any other patient.

## There's no convincing evidence to stop ACE inhibitors in primary care

- Though they're often stopped for other reasons in critically-ill patients

Interested in helping? Not a hospital-based clinician? Here are some potential roles:

- Community physicians can be redeployed in many helpful ways in the inpatient setting when COVID increases demand. Roles could include med reconciliation, family conversations, procedures, caring for non-COVID patients (e.g. post fracture ward), mental health support for front line clinicians by telemedicine.

## Thanks to the speakers on the video:

- **Dr. Omar Ahmad**, Critical Care, Emergency Medicine – Victoria, BC
- **Dr. Adam Thomas**, Emergency Medicine, Critical Care Fellow – Vancouver, BC
- **Dr. Mario Francispragasam**, Critical Care, Emergency Medicine – Vancouver, BC
- **Dr. Danish Ahmad**, Internal Medicine, Emergency Medicine and Critical Care Medicine - New York, NY
- **Dr. Dee Hoyano**, Island Health Medical Officer of Health – Victoria, BC
- **Dr. Chloe Lemire-Elmore**, Hospitalist – Victoria, BC