THE UNIVERSITY OF BRITISH COLUMBIA
Continuing Professional Development
Faculty of Medicine

UBC CPD
The Division of
Continuing Professional Development
Faculty of Medicine
City Square, 200-555 W 12th Ave
Vancouver BC Canada V5Z 3X7
T 604.675.3777
ubccpd.ca

PRACTICAL TIPS AND EXPERT Q&A WITH EMERGENCY, HOSPITAL-BASED, PRIMARY CARE, AND PUBLIC HEALTH CLINICIANS

Webinar recording: **June 18, 2020**
URL: https://ubccpd.ca/covid-19-update-practical-tips-and-expert-qa-emergency-hospital-based-primary-care-and-public-health

Disclaimer: Information on COVID-19 is changing rapidly and much of the research is preliminary. Assessment and management 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 policies and support for the suggested approaches to patient care may vary between regions.

This summary was prepared by Dr. Simon Moore and not by the speakers.

Summary of Key Points

- **Serology testing in BC will likely occur starting in the next month, but will not yet be available for widespread clinical use**

  The majority of serology testing will be used for epidemiology or public health rather than for identifying acute infections. Serology testing will be centrally conducted in the province, rather than through specific health authorities. The initial serology testing will be for IgG & IgM (total) antibody. Unfortunately, the IgM testing reliability has been inconsistent, as background noise confounds the results; this likely occurs due to other previous viral infections or other coronavirus infections.

- **Asymptomatic testing is not recommended for the general public at this time, including for pre-hospitalization, pre-operative, occupational, or athletic populations.**

  The tests are not sensitive enough to recommend asymptomatic testing in BC at this time, and there are significant consequences of false positives which are a large concern when the pretest probability is low. The details of shedding of virus in asymptomatic patients is currently

controversial. Asymptomatic testing is currently only performed for some specific contact tracing clusters when Public Health has deemed it necessary.

- **Unexpected consequences of COVID-19 are emerging, including a dual public health emergency, but clinicians can take steps to mitigate these**

  Examples include social isolation, cancelled surgeries, and transition of primary care to over 90% virtual visits. Communities are finding new ways to connect with socially isolated patients, and clinicians are finding new ways to deliver preventive care and continuity of care (see The Doctor Is In – Expanding In-Person Care and Tools for Virtual Management of Chronic Disease). There is also a dual public health emergency occurring with over 170 overdose deaths in BC last month, the highest monthly total ever recorded. To help mitigate this crisis, clinicians can continue to offer broad services to vulnerable populations and encourage patients to seek care as they may be reluctant to do so.

- **Modeling suggests that staying at 60% of usual social contacts can minimize and delay a second wave**

  As social distancing is relaxed, modeling predicts no or minimal increase in cases in the short term with 60% of normal contacts. If the number of normal social contacts increases to 70% a slight second wave can be expected. If this is increased to 80% the model projects a sharp increase in cases; at this level, contact tracing also becomes increasingly more difficult.

- **Canada's critical care mortality rate for COVID-19 is the lowest reported worldwide**

  In China, the ICU mortality rate was 40-50%. In New York, many non-critical care physicians were providing care in intensive care units. This speaks to the importance of preventing a surge in the number of cases and overwhelming the usual critical care resources.

- **"Don't come to work while sick" is critical to prevention of transmissible diseases including COVID-19, and can be facilitated if clinician groups create robust backup coverage scheduling**

  Difficulty finding coverage can be a disincentive to clinicians who are showing symptoms and have to take time off to get a COVID-19 test before returning to work.

- **BC is well-prepared for a second wave**

  With credit to Dr. Bonnie Henry's leadership and with the help of the Ministry of Health, BC is well-prepared for a second wave with surveillance & testing capacity. New infrastructure and positions have been created to respond to the pandemic. Much has been learned from BC's response to the first wave such as freeing up hospital space with cancellation of elective surgeries and flexibility of authorities in clinician credentialing. As well, work has been done to provide an option for ill rural patients to cohort near a larger centre to reduce travel should they become critically ill; the province has also obtained 5 new air ambulance assets.

- **Resiliency of clinicians is an important aspect of second wave planning**

  The first wave has taken a toll on clinician wellness, especially in hard-hit areas. Mental health care for clinicians should be encouraged; “take vacation this summer!”

- **Mask-wearing is a choice for the public at this time**

  BC health officials recommend (but have not mandated) mask-wearing in places where distancing is difficult e.g. transit, certain workplaces, especially indoor locations.

- **High-quality usual critical care is the best possible treatment for critically ill COVID-19 patients and is the current recommendation for critical care in BC (other than for patients in clinical trials). Dexamethasone is the only medication so far showing benefit in trials.**
  - **The Recovery randomized controlled trial showed hydroxychloroquine has no mortality benefit, but dexamethasone showed a major improvement.**
    This well-constructed trial, with 12,000 patients from 175 hospitals in the UK, showed a reduction in mechanical ventilation & supplemental oxygen requirements in patients who received dexamethasone 6mg/day or equivalent. A previous dexamethasone ARDS trial suggested a similar benefit. Dexamethasone is not currently being prescribed for ward patients in Vancouver with COVID-19 as questions remain regarding the optimal timing.
  - **Remdesivir is expensive and has not shown any benefit in mortality for COVID-19; other therapies are being studied.**

    A NEJM trial by Biegel et. al. showed improvement in recovery time may be misleading because the results were reported early at 14 days. Another Lancet trial by Wang et. al. showed no benefit vs. placebo. A small trial by Hung et. al. in the Lancet showed benefit with triple therapy with interferon, lopinavir-ritonavir, and ribavirin but secondary outcomes were not significantly addressed and further research is needed. Remdesivir is not being used in patients in Vancouver at this time; in New York, however, it is widely used for patients in critical care with COVID-19 who have adequate renal function.
  - **Vitamin C and Vitamin D are being studied but also not recommended for routine care at this time.**
    Vitamin C may seem harmless but can interfere with glucometer readings and result in neuroglycopenia.

- **As was the recommendation before COVID-19, MDI + spacer device is still considered superior to nebulized therapy, with one twist: providers are advised to now wear mask and droplet protection when giving nebulizers or CPAP**

  Even in COVID-19-negative patients, masks & eye protection should be worn when giving nebulizers in order to prevent providers from acquiring disease from the patient (e.g. multi-drug resistant pneumococcus or gram-negative bacteria).

- **For maternity care, newborn and well-child care, do as much virtual care as possible; continue to provide essential care (including vaccinations) in-person.**
  In-person care is still recommended as an adjunct to virtual care conversations, such as a brief visit for palpation to assess for breech presentation and blood pressure check to assess for preeclampsia risk after conducting the remainder of a prenatal visit virtually. Maintain vigilance for the risk of postpartum depression which is now higher especially with increased isolation. An in-person weight check at 7 days for newborns is recommended; keep a low threshold for in-person visits for newborns. Many well-child visits can be done over the phone, but be sure to promote the importance of maintaining the usual vaccine schedule.

- **CPR has not yet been officially deemed an aerosol-generating medical procedure (AGMP)**
  There is aerosolization of particles during CPR according to some small studies and cadaver studies, but the clinical relevance of this remains controversial. Due to lack of convincing evidence, in BC it is still treated as an AGMP out of an abundance of caution; there will unfortunately be unintended consequences to this practice.

- **Racism is a major public health issue leading to inequity in health outcomes; for those who are attending protests against systemic racism, advice can be given to improve safety of COVID-19 risk during protests**
  For example, stay distanced from other protestors and wear a mask, and do not attend if you are well.

- **Maintain high suspicion for multisystem inflammatory syndrome in children (MIS-C)**
  Though it has similarities to Kawasaki's disease, MIS-C is seen in older children (age 5-7 and up to age 18-19), and is occurring in higher rates than expected. It remains rare but it is being increasingly reported and warrants increased vigilance for patients who meet the criteria, especially because these patients initially appear well but rapidly deteriorate. If suspected, consult pediatric colleagues and be aware that MIS-C is a reportable illness in BC.

- **COVID-19 preferentially infects specific demographics, including low socioeconomic groups and the elderly**
  As of June 15, 2020, BC has reported 2,745 cases with 168 deaths (6%). Median age of infected patients is 51 and 18% of positive patients became hospitalized. The median age of hospitalized patients is 68 and median age of patients who died is 85. 52% of patients are female.

Resources & References

- **Baseline characteristics and outcomes of patients with COVID-19 admitted to intensive care units in Vancouver, Canada: a case series**
  https://www.cmaj.ca/content/192/26/E694

- **The Doctor Is In – Expanding In-Person Care**
  https://www.doctorsofbc.ca/sites/default/files/recommendations_for_expanding_in-person_care_in_community_practice.pdf

- **Tools for Virtual Management of Chronic Disease**
  https://sdcrc.ca/downloads

- **Is Canada ready for the second wave of COVID-19?**
  https://www.cmaj.ca/content/192/24/E664

- **Coronavirus: Dexamethasone proves first life-saving drug**
  https://www.bbc.com/news/health-53061281

- **MIS-C in BC criteria & clinician guidance**
  http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_MIS-C_ClinicianGuidance.pdf

- **ROSE Telehealth**
  www.RoseTelehealth.com

- **BC Centre for Disease Control**
  http://www.bccdc.ca/health-info/diseases-conditions/coronavirus-(novel)

- **CAEP**
  https://caep.ca/

- **BC Provincial Critical Care Working Group**
  https://bcpsqc.ca/improve-care/critical-care/critical-care-working-group/

- **Internet Book of Critical Care**
  https://emcrit.org/ibcc/covid19/

- **EB Medicine**
  https://www.ebmedicine.net/topics/infectious-disease/COVID-19

- **EM Rap**
  www.EMrap.org

- **CMAJ**
  www.cmaj.ca

- **Local Health Authority & Government websites**

- **Dr. Bonnie Henry Fan Club**

Thanks to the speakers on the video:

- **Dr. Omar Ahmad –** Dept. Head of ER & Critical Care, Victoria, BC
- **Dr. Jeanette Boyd –** President, BC College of Family Physicians
- **Dr. Katie Wiskar** – General Internal Medicine, Vancouver General Hospital
- **Dr. Pamela Kibsey –** Medical Microbiology, Island Health Authority
- **Dr. Adam Thomas –** ER & Critical Care Physician in Vancouver & Victoria, Co-Editor of the Internet Book of Critical Care, who had to leave partway through the webinar as his wife went into active labour
- **Dr. Danish Ahmad –** Emergency Medicine, Internal Medicine & Intensive Care Physician, Mt. Sinai Hospital, New York, NY
- **Dr. Rakel Kling –** Medical Officer of Health, Northern Health Authority