



The Covid-19 Pivot

*Rapid evidence reviews
with the PEER team*

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Masks

1

Mask use in healthcare workers for prevention of infection

Drug Treatment

2

Hydroxychloroquine for treatment of COVID-19 illness

Clinical Factors

3

Clinical presentation and course of COVID-19 infection

Testing

4

PCR testing – how reliability is our test?

Miscellaneous

5

Are these medications risky (ACE/ARB & NSAIDs)

6

Mask use in community for prevention of infection

7

Remdesivir and other Antivirals for COVID-19 illness

8

Asymptomatic: frequency & transmission risk

9

Serology Testing – Is it ready for prime time

10

Virtual Assessment of Dyspnea





Disclosure of Financial Support

Faculty/Speaker: Christina Korownyk

- » Co-Director for Evidence and CPD, Alberta College of Family Physicians (ACFP)
- » Spoken at conferences sponsored by ACFP

Faculty/Speaker: Mike Kolber

- » Received honoraria for presentations/work: Best Science Medicine, ACFP, BCCFP, Alberta Expert Drug Committee
- » Co-founder of EMPRSS – Electronic Medical Procedure Reporting Systems Inc, a University of Alberta/TEC Edmonton spin-off company that evaluates the quality of procedures performed by health care professionals

Faculty/Speaker: Adrienne Lindblad

- » Employee of ACFP



Disclosure of Financial Support

Faculty/Speaker: James McCormack

- No conflicts of interest to declare

Faculty/Speaker: Mike Allan

Salary from The College of Family Physicians of Canada, University of Alberta, Locum

Relationship with financial sponsors:

- Grants/Research Support: Alberta College of Family Physicians; Toward Optimized Practice, CIHR, PRIHS, ON LHIN Grant, St. Paul's Hospital
- Honoraria: Alberta, Ontario, NFLD, PEI, BC College of Family Physicians; Multiple University CPD depts, miscellaneous conferences
- Other: 2 RCTs (public funded)



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Learning Objectives

After this webinar presentation, the participant will be able to:

1. Describe the best available evidence for the diagnosis of COVID-19
2. Describe the best available evidence for the treatment of COVID-19
3. Describe the best available evidence to prevent the transmission of COVID-19

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Masks

Masks in healthcare workers;
-Surgical masks and respirators (N95) appear similar in preventing viral infections, [N95 masks having slightly – not statistically different- lower infection rates (~1-2%).
-Cloth masks are poorer than surgical (with ~2% RTI x4 wks).
-No RCTs examined transmission to others or COVID-19.
-Masks just one-part PPE and transmission precautions.

Mask in the community may reduce transmission of viral RTI (from 2 RCTs). If community risk was ~25% over 6 weeks, masks could decrease that to ~19%. No COVID-19 research, many studies examined others risk once someone was sick, and the overall certainty of evidence is low. Any mask use should be combined with social distancing and other preventive strategies

Drug Treatment

Without further evidence, hydroxychloroquine is not appropriate for patients with COVID-19 in primary care. A number of recent trials/studies show an increased risk of side effects and QT prolongation especially at higher doses. RCTs are ongoing and hopefully they will provide more insight into the benefit/harm of this empiric treatment.

To date, no published RCTs have demonstrated benefit of treating COVID-19 patients with remdesivir, lopinavir–ritonavir or oseltamivir. One interim analysis of remdesivir suggests improved time to recovery. Full publication of studies and ongoing trials will help to answer this question.

Clinical Factors

- Cough, fever and dyspnea are the most common symptoms of COVID-19.
-At least 80% of cases are clinically mild, ~10% are hospitalized and 25% of admitted patients require intensive care.
- Mortality risk factors include long-term care residents, age >65, co-morbid illnesses, and COVID-19 associated cardiac injury.

Transmission of COVID-19 can occur in people who are currently asymptomatic (including those who will remain asymptomatic and those who are early and not symptomatic yet). Case reports suggest this occurs in 6-13% of cases, although modelling suggests this might be higher. ~50% of carriers are asymptomatic when an entire population is tested.

Testing

Studies of clinical PCR sensitivity are limited and vary widely for many reasons. Even if test sensitivity ranged between 50-90%, patients with low pretest probability (example 10%) would have at worst a 5% false negative rate.

While IGM and IGG antibodies (serology) may tell and individuals recent or past exposure – it is unclear whether antibodies confer immunity to subsequent infection. Accuracy of antibody testing likely requires validation in large number of infected and non-infected individuals.

Miscellaneous

There is no reliable evidence that NSAIDs, ACE inhibitors or ARBs increase the risk of COVID-19 or affect disease severity/mortality from COVID-19

Unfortunately, no specific technique, including the Roth Score, reliably assures dyspneic patients are safe. No studies assessed dyspnea in COVID-19 patients. Clinicians are encouraged to use available tools (**BMJ Virtual Assessment tool**) and have patients assessed in-person if any concerns.



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