The Covid-19 Pivot

Rapid evidence reviews with the PEER team

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1. Mask use in healthcare workers for prevention of infection
2. Hydroxychloroquine for treatment of COVID-19 illness
3. Clinical presentation and course of COVID-19 infection
4. PCR testing – how reliability is our test?
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
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

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➢ 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
### Masks

- **In healthcare workers:** Surgical masks and respirators (N95) appear similar in preventing viral infections, with N95 masks having slightly 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.

- **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.

- 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.

### 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.

### 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 an individual 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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