



## COVID-19: Medical Director update

Dear members,

New Zealand has done incredibly well to avoid a COVID-19 crisis, which I believe is in large part due to general practice.

We've stepped into a world where the normal modern medical defences - vaccines and antibiotics - are not at our disposal. We've had to confront this (currently) untreatable disease in the same way our parents and grandparents once faced other viruses – by practising physical distancing and good hand hygiene.

Sitting on the Ministry of Health's Technical Advisory Group (TAG), I was lucky to have oversight of a lot of the COVID-19 national response. There is no doubt that when the College put the call out to switch to remote service delivery ahead of the lockdown, it was the right thing to do.

At that point (Saturday, 21 March) we were literally a week away from not being able to contain the outbreak. We would have been faced with a potential health system meltdown like Italy, Spain, the UK, and the US. The fact we avoided that is a credit to ourselves, the general practice profession. The College and general practitioners really stepped up to the mark.

We have learnt a lot about COVID-19 in the last three months, and still have a lot to learn. Here are just a few of the lessons we've learnt:

- The average age of death from COVID-19 worldwide is approximately 80 years of age.
- Co-morbidity is the major risk factor especially diabetes, cardiac disease, and immuno-compromised patients.
- A rare but worrying inflammatory condition in children emerged.
- The peak infectivity period for COVID is five-seven days.
- PCR testing can stay positive long after the patient is non-infectious.
- COVID does not last for 27 days on surfaces (as first reported).
- COVID does not spread for two weeks before symptoms emerge (as first reported).
- COVID is associated with the ACE-2 receptor on cells that predominate on the mucosal surfaces of the respiratory track.
- Ventilation can be a lifesaver as long as you don't start it too early.
- If you have COVID, you are better off laying on your stomach as it improves V/Q perfusion. However, only for a maximum of approximately 16 hours.
- Hydroxychloroquine does not work except for President Trump, and;
- The cytokine storm is often the terminal event.

Although we have made good progress, it would be remiss at this point to rest on our laurels and think this is finished.

A large part of the strategy now will be keeping our borders closed because the majority of COVID-19 in New Zealand was introduced by overseas travellers. We are in a situation where the pandemic runs, in many cases, unchecked around the world and could very easily be reignited here if we don't have secure borders.

In some of the modelling I've seen it would take just three to five patients with COVID-19 to continue their normal business for three days, undetected, to face a potentially exponential increase in cases again. We're treading a thin line between maintaining the gains we have made and relapse, and we need to be vigilant to ensure this doesn't happen. Personal protection, distancing, and hand washing (the pre-antibiotics and pre-vaccine treatments) are our main protection.

### **How general practice will ultimately save New Zealand**

General practice must be seen as a leader in instituting ongoing physical distancing, hand hygiene, and separation of infectious and non-infectious patients. We know that waiting rooms of health facilities (whether in the community or hospital) can act as a conduit to spreading infection. As health leaders in the community we need to set the example and continue to practice these principles as general practices get back up to speed and begin functioning as normal. We are moving into a space where infection controls need to have ongoing priority regardless of how much COVID-19 is present in the community.

COVID-19 has been an alarming experience and one we cannot back away from. A vaccine at best estimates is 12 to 18 months away. We all hope it will be sooner, but that would be a miracle of modern medicine. Once we have a vaccine, it will take time for New Zealand to access it and immunise the population.

The costs of COVID-19 to New Zealand and to general practice have been huge over the last few weeks. We can feel justified in saying general practitioners were leaders in this fight and in protecting our most vulnerable communities. However, we are not finished, nor potentially will we be for the next 18 months.

There are only three ways this ends:

1. A vaccine is developed.
2. We achieve herd immunity.
3. COVID burns itself out.

If there was to be a second wave in New Zealand, we need to be prepared to step up again. We still have an obligation to the communities we serve. We have a duty of care to provide the acute, chronic, and preventative care New Zealand general practice is renowned for. At this point, we have won, but we need to keep that victory going.

We can thank ourselves for the job well done up until this point. There is a long way to go, but we can and need to continue our central role in the health system response.

Stay strong and keep smiling.

Best wishes,

### **Dr Bryan Betty**

MBChB, FRNZCGP, FACRRM

Medical Director | Mātanga Hauora

The Royal New Zealand College of General Practitioners