Well it didn't seem like Easter: the brilliant weather of the first couple of days reinforced this feeling too! At least we are half way through lockdown, and all the immense sacrifices everyone is making seem to be paying off with the caseload dropping right down. The community clusters continue to worry us all, especially as prolonged time between one person in a cluster getting sick and the next may suggest an asymptomatic carrier, or a missed mild case between known cases. There is so much we do not know yet about this virus and its transmission. For instance, how long a person is viral shedding effective virus after feeling well again would be a good question to know, and would definitely help us contain this epidemic.

There will be more deaths. Some Resthomes are now seeing cases, and these patients are highly vulnerable. Social distancing isn't possible in dementia units, or with frail elderly needing intensive nursing care.

I am concerned too about what was euphemistically called collateral damage in the Vietnam War. This happened where bombing of places like Hanoi by American planes hit civilian homes, hospitals, schools as well as factories and transport hubs. Is the fear of SARs-CoV-2, the virus that causes the illness Covid-19, going to stop patients accessing medical care for other matters? Chest pain needs to be checked out. Changing pigmented lesions on the skin need to be seen and excised. Lumps need to be investigated. Painful tummies need to be looked at and felt by doctors. Virtual consultations are great! They can be convenient and efficient but they do have their limitations and often we will be asking you to come in after talking with you. Sometimes that day, sometimes the next day.

Often you will get a call back the next day from one of us doctors as we too work through our concern about you: this doesn't mean you will be charged twice. It's really about making sure you get good care and the plan we have worked out together is working.

Even if we eliminate Covid-19 from our country, it will be at the expense of closed borders and a changed lifestyle as our whole tourism sector finds alternative jobs. This week just watching the repatriation of 12,000 German tourists by Lufthansa and Air New Zealand who were caught in NZ by lockdown reminds us how important tourism is to us in NZ.

A successful vaccine will take time to develop, and time to multiply up, time to arrive in NZ and get distributed. Then how effective will it be? None of the vaccines we use are 100% effective. It is possible to get shingles despite vaccination and the vaccine having been available for years. Similarly influenza, measles etc. Some vaccines wear off after a number of years, for some people more than others: whooping cough [pertussis] is a good example.

So getting enough people vaccinated so that the virus dies out of the community will be very important. This 'herd immunity' will be the main way we can protect our older and vulnerable members.

We can hope and pray the virus mutates in some way to become less lethal. Unfortunately it's looking very stable currently. It is not under pressure to dampen down this lethality when it can spread so easily and readily yet. If it is very lethal like the two forerunners of this version of the coronavirus which caused SARS and MERS then it kills off too many of its hosts, is easily contained and dies out. A virus which kills its hosts doesn't last. From the virus's point of view it's not a good survival strategy.

So medications to treat it will be important too, maybe more so than the vaccine. We know starting early with anti-viral medications when the virus is multiplying up in the body is very important in some viral illnesses. The herpes group- cold sores [HSV1 and genital herpes [HSV2] and shingles [HSV4] – are good examples. Acyclovir and valacyclovir need to be started in the first 72 hours. HIV 1 and 2 which causes AIDS is a master at developing subtle changes to it's genetic material in the body to that the medication used to hinder its multiplication can slowly or suddenly become ineffective. We need to switch to another retroviral, and so 'cocktails' of a group of retrovirals are customarily used. Efforts to treat influenza viruses have been in the large unsuccessful mainly because of its ability to change its outer protective coat so easily. The virus does this because the human immune system is very good at remembering every new influenza strain so can attack it very early, but does make developing medicines against it difficult.

Immune treatments are promising however, especially for the younger badly infected patients whose immune system seems to go haywire and over-react in that second and third week, the so-called "cytokine storm". We have little idea why one patient reacts this way and others shrug off the infection quite easily. We know it probably has some relation to viral load. That is the amount of viruses you get in the first place- so keep washing those hands, avoid coughs, and do social distancing.

It also must relate to whether the virus stays in the nose and throat causing an illness like the common cold, or does it get down and through the lungs killing off lung cells. To a medical researcher every one of these issues is a promising point to research. Finding a way to inhibit, arrest and treat Covid-19 is Nobel Prize stuff, and lots of dollars for the pharmaceuticals industry.

We are good at the surgery. Morale is high. Currently we are looking at dividing into two teams for the rest of lockdown, with one team working from home and the other at the surgery on alternate days. This way we can be sure there is always Dr Mick or myself there to examine sick patients if needs be, and we reduce the possibility of both of us sick or quarantined at the same time. We are determined to be there for our patients. After lockdown we will all be back at the surgery, but we will need to see

how it goes with new case identification before we can guarantee its back to business as usual.

Be well, be safe, and warm regards from everyone, The doctors Jacqueline, Mick and Cathy, the nurses Kay and Paulette, the receptionists Ana, Anjana and Jane, and our wonderful practice manager Meriana who keeps us all working well together.