

## Blog: 20<sup>th</sup> June, 2021

At the surgery COVID Immunisations are starting to flow now.

In two days' time we will do our 1000<sup>th</sup> patient! It will get easier once we have extra nurses helping but even getting that organised has been difficult. It's not just finding nurses at a time of shortage, there are a number who want to help out but cannot get their registration again as their annual certificates have lapsed more than three years and they have to go through an elaborate process to be able to just vaccinate.

For instance the Medical Council had a fast track process to allow retired nurses back into the workforce just to vaccinate, but this ended March 31<sup>st</sup> this year, and amongst all the other work to do, nobody extended it. We have patients who have stepped up: Eden is already working some mornings, Kathy joins him this week three days a week, and we have Jools able to start full-time in two weeks' time. Wendy [who is a retired nurse] and Rachel are now registered to use the system and can help Meriana and our receptionists with logging people in and reduce the workload on them.

Hopefully this will help free Dr Cathy up to see her patients, and reduce the load particularly on our nurses and particularly Meriana, our amazing Practice Manager and finally give her a weekend off. Once we have staff in place we hope to be in a position to do Saturday walk-in clinics. Watch this space!

We are proud we have been able to do our bit helping with this huge immunisation drive. It is a big learning curve, not just for us, but the whole network - from the people who service the immunisation fridges, the immunisation co-ordinators, all the distribution lot from the very cold storage -70<sup>0</sup> fridges, the distribution hubs trying to get a handle on the numbers needed to defrost each week, specialised cold-storage couriers, and the IT people involved. We now own a lot of extra chairs, tables and iPads, and have a new expensive immunisation fridge [the big ones like in our treatment room cost nearly \$13k but are currently unavailable with the surge in requirements]. Just getting one was hard enough and a big thank you to this little firm Optitech in Richmond, Nelson who got one on the back of a truck, across The Strait and up to us just in time. Not just us, but everyone is working hard.

The country is rightly prioritising vaccines. Being over 65yrs [over 55yrs for Maori and Pasifika], chronic illness, disabilities, medical and border workers and pregnancy means you qualify now for a vaccine anywhere in NZ, **but here in South Auckland anyone over 16 qualifies now.**

This is where the border workers live and where we have had the incursions of COVID through the borders. Not Picton, Waimate and Masterton. Everyone else will get theirs done from the end of July, working in bands from older people down to the youngest.

So why have a lot of people who don't fit into the criteria above already had theirs?  
There are three reasons:

1. Cold chain issues
2. Bubble issues
3. Vaccine drawing up issues

**1. Cold Chain issues.** These are getting sorted. But initially it was thought the vials which are each meant to contain 6 shots and come in boxes of 5 vials could only be out of the deep deep freezing fridges for 6 days. They allowed one day to get them out and to the distribution hubs. That meant we had five days to use them all up. But trying to work out how many to order meant sometimes we got the vaccines with a short shelf life. At one early stage, with no extra staff, we were delivered on Wednesday evening 110 vaccines to use up by the end of Friday. Our staff heroically managed to use everyone, even to the extent that the last unused one on Friday night went into the arm of a delighted young customer at the electrical wholesalers over the road! New big studies overseas have showed these vaccines can be out of the deep deep freezers now in ordinary freezers at 20°C for 31 days and that has reduced potential waste and our management anxiety. It's also made vaccination more possible in countries that don't have reliable electricity supplies, fridges and transport networks and we need tropical and third world countries to be vaccinating too if we are to beat this epidemic.

**2. Bubble issues.** When we have vulnerable elderly or sick at home we are vaccinating those who live with them. It makes sense as it's the younger ones who are most likely to bring it home. That goes for influenza vaccinations too.

**3. Vaccines drawing up issues.** Vaccines come in a vial with exactly 4.5ml of active vaccine in them. To this is added 1.8ml diluent [normal saline]. This adds up to 2.25ml. Our nurses have to work slowly and carefully with this vaccine. With the special syringes, they then draw up each very accurate and double checked dose of 0.3ml. If you do the division sums [2.25 divided by 6], you will realise that leaves 0.45ml in the phial left over. This is to allow for needle space and inaccurate syringes which don't fully empty, called dead space.

Our bureaucrats ordered us the best syringes possible which have no dead space [unlike quite a number of countries which should have known better]. If the nurses are very careful not to get a tiny bubble- and they compete amongst themselves not to - they can draw up 7 full doses. They usually do this. But we can't rely on it and have to book in 6 appointments per file. These extra 7<sup>th</sup> doses are what we use to add in extra patients who have come to see us for consultations and qualify but haven't booked a vaccine appointment yet.

Towards the end of the day we may have some of the extra vaccines left over. This is where our receptionist has a shortlist board of people they can call in at short notice. Anjana, our receptionist is the Queen of this, and watches numbers like a hawk

through the day ready to call people in at short notice, We are very proud that we haven't wasted a dose yet. I got one of these doses when it was just border workers and their bubbles being done back in April which is why I had only 90 minutes notification and had to drive the Southern Motorway into the city and find a park on a Friday afternoon. If you can come in late afternoon at short notice, please can you ring Anjana and go on her list? We really don't want to waste any of this expensive vaccine and we will guarantee you your second vaccine after 21 days with an appointment to suit you - made at the time of the first one vax.

Wow go team! I am very proud of our team at the surgery and the way they are working together.

The only other issue I think I have time to discuss it about the timing of the second COVID vaccine. Dr Cathy, Paulette and I [and Dr Mick on Saturday and Sunday] were fortunate to attend the Rotorua NZMA Continuing Medical Education conference last week for three days.

It's a full-on meeting with lots of fast information packed workshops and high level 20 minute presentations from specialist from all fields. COVID was just one issue highlighted but we went to all these presentations.

There was a heavy presence from our Auckland Immunology team but also the head of Wellington's team was there too. Of interest, the timing of the second vaccine was discussed. The first vax is what works and gets antibodies building up from two days after, and by two weeks, 87% of people are immune to the COVID virus.

With a second vaccine this goes up to over 94% [the other 5% seem to have various degrees of partial immunity]. What is important is the second vaccine makes the body remember longer. How long we don't know yet- watch this space as it is a question being addressed in lots of studies overseas. Even if a person has had COVID, the body often doesn't bother to remember which is why there are a small number of proven second infections in places like America, Britain and Germany. But if the body has met it twice, that's a different matter, the immune system gets more vigilant.

Each disease and each vaccine has its own effect on our immune systems. After the original childhood series of vax to prime our immune systems we usually only boost tetanus at 45 years and 65 years for instance. It 'lasts'. Whooping cough [pertussis] however is notorious for wearing off which is why you new grandparents and close friends of pregnant mums are being asked to update your own immunity and get another jab as whooping cough kills babies. We know at our surgery - having had a case.

We don't know yet how long the Pfizer- BionTech COVID vaccine [now called Comirnaty] will confer adequate immunity. We do know our border barrier will eventually break down like Taiwan's did at the end of April, and we do know that this

world won't get fully vaccinated so we are going to have to live with this virus until it either mutates into a harmless mild illness or dies out. [My guess is it will mutate into another harmless common cold virus in maybe 50-100 years.....].

The big clanger dropped from the Immunologists was Auckland's Professor of Immunology explaining that with this new Crispr technology which doesn't have the genetic modification obvious, joins like the older SNP type, he believes the COVID epidemic arose out of scientific experiments going wrong and escaping out of the lab, The Institute of Virology in Wuhan. It's all about an unusual 12 base sequence in the virus genome that it's hard to explain why it's there. Prof Rohan Ameratunga is a serious well published scientist himself and not prone to conspiracy theories so that shook my belief. I await more information now and will watch and comment as it comes in.

So once again it's all about COVID. Thank you to all our patients for your support through this difficult time, for coping with the overloaded phone and parking spaces [though much of that's that new apartment build along the road and tradies occupying spaces all day, and digging up water mains twice cutting water to the surgery....].

Please come in for your COVID vaccines: just ring and make an appointment at a suitable time for you, and bring vulnerable friends and family too. If they are not patients, they just need photo ID with them and we welcome them too.

Our thoughts today are with the family of the poor man who lost his life yesterday suddenly and violently in the sudden brief tornado not too far away from us. Our condolences to them and all those left in distress with uninhabitable homes and damage to clear up. My daughter Arena Williams, MP for Manurewa has been there [while I enjoyed babysitting for her] each day helping organise immediate relief along with the Acting Minister Kris Faafoi, MP for the affected area, Jenny Sales, Mayor and all the civil defence, police, St Johns and enormous volume of helpers. It does remind us of what counts, living well and not sweating the small stuff once again.

Jacqueline and all the team, Drs Cathy Latu, Mick Eason, Terrilian Hui, nurses Paulette, Shannon and Angie, Receptionists Anjana, Ana and Jane, and the redoubtable Meriana our Practice manager who holds our team together.