Vaccination controversy shouldn't compromise efforts to protect Australians

By John Dwyer

Mar 10, 2021

Credit - Unsplash

The crucial fact is that all the vaccines being administered around the world provide near 100% protection from death and the need for those infected to receive intensive hospital care.

Incredible advances in science have allowed scientists to provide us with a number of vaccines that can protect us from the ravages of a deadly new virus within a year of our first look at this new foe. More than 113 million people have been infected, more than 2.5 million have died, nearly 500,000 are being infected each day with on average, about 10,000 deaths a day.

Providing protection through a global vaccination program could not be more urgent. While the production and distribution of sufficient amounts of vaccine present unprecedented logistical problems, equally important is the enthusiastic participation in the program by individuals confident in the efficacy and safety of the vaccines offered.

There is obvious confusion about just what efficacy in this context entails. Ideally, vaccination against the SARS-2-Cov virus would result in four outcomes. Most importantly, vaccinated individuals would not die if infected, nor would they become so ill after infection that they needed hospital care, which would compromise the safety of hospital staff and the availability of intensive care facilities.

Ideally, after vaccination, individuals who were infected would not experience any non-life-threatening symptoms typical of severe respiratory infections that could result in short term misery

and absence from normal activities and they would not be able to harbour live virus in their respiratory secretion that they could pass onto the unvaccinated.

No vaccine available today can guarantee all these outcomes. Early results show that some come closer to achieving these outcomes than others but here is the crucial (very fortunate) fact.

All the vaccines being administered around the world provide near 100% protection from death and the need for those infected to receive intensive hospital care.

All the manufacturers are well aware that these model one versions must be seen as 'works in progress'. Viral mutations are challenging as they may result in structural changes to the virus that interfere with the ability of antibodies generated by vaccination with the original viral model to neutralise a current infection as the variants will "look different". Some vaccines appear to be less efficient at responding to variants but still have the capacity to block serious disease and death from infection.

Any international comparison shows we have done well in minimising deaths and severe illness requiring hospitalisation from the Covid virus. This success has been won on the back of huge economic and social costs that few would begrudge but all would like to avoid in the future.

Our major vulnerability has come from the necessity of having some individuals who are infected and infectious come to our shores. Our quarantining program has been largely successful in protecting us but has not been perfect. Border closures, loss of income, mental health stresses and other consequences are the price we have paid for avoiding the catastrophic episodes of illness and deaths so prevalent in other countries.

Just one new case in New Zealand has seen Auckland back in 'lockdown' mode yet again.

Our priority in Australia is to have enough Australians immunised for us to be able to relax and not resort to 'lockdown' strategies when we discover new infections in our community because we know we won't see a wave of infections, severe illness, swamped hospitals and death as the vulnerable are protected.

We plan to achieve this insurance using the Pfizer vaccine for a sub-population and the AstraZeneca vaccine for most Australians. The latter is not the best credentialed but it is nonetheless a very good vaccine. We have every reason to believe this vaccine can achieve the crucial outcome, providing enough Australians get immunised.

If in short order we could obtain 55 million doses of the Pfizer vaccine we would no doubt use it for our mass vaccination campaign. We can't, indeed the promised availability is already under strain. And the latest data from the UK where both vaccines are in use demonstrates that the Pfizer vaccine reduced hospital admissions by up to 85% four weeks after the first dose, while the AstraZeneca cut admissions by up to 94%. We can also manufacture the AstraZeneca vaccine here, an important advantage.

I believe we would be very foolish to continue to risk lockdowns and quarantine dramas for another year or so waiting for more Pfizer vaccine. I disagree with the conclusions from Robin Boyle that:

"Most other countries need to mass vaccinate now but Australia doesn't. We should forget AstraZeneca and wait for higher efficacy vaccines to avoid having lower overall immunity than those other countries."

The big picture is that SARS-2 is here to stay. Unlike SARS 1 (circa 2003) and the MERS coronavirus (circa 2011), this new guy is highly infectious, getting more so and in a world as unfair as ours is unlikely to be eradicated.

Like influenza we will live with it, controlling it with vaccine modifications that respond to viral mutations. It is safe to say that none of the vaccines in use today will be in use in four years time. We will all get annual shots of Covid vaccine around the time we get our 'flu' shots.

For the near future, we will be stuck with quarantine demands because the immunised can still be carriers and spreaders of the virus. Vaccination passports would not provide all the reassurance we would need to not isolate visitors. So far we have not produced vaccines against any respiratory viruses (such as polio and influenza) that provide 'sterilising immunity", the inability to be a carrier of live virus in nasal and respiratory secretions even if vaccinated.

Data shows that vaccines can reduce nasal carriage of the virus following immunisation by about 60%, although that data is very 'soft'. The problem is that our immune system consists of two partners, one that produces antibodies to protect our organs and tissues and one that protects our inner 'skin', our mucous membranes and intestinal tract. When we inject a vaccine into a muscle we set off the protective cascade that stops tissue and organ damage. The challenge is to produce a vaccine that could be administered as a nasal spray so we might have antibodies in our secretions that would neutralise the virus and render us non-infectious. We will get there.

A survey last week suggested 23% of Australians are not yet comfortable about being vaccinated. Stories about wrong doses being given, vaccine wastage and disparagement of the AstraZeneca vaccine are not helping. Nor I suspect are the little cartoon characters the Commonwealth is putting on our screens to tell us how safe and effective are our vaccines. An independent project monitoring online vaccine sentiment for the federal government has reported that anti-vaccination comments surged from about 200 a day to almost 6000, within 20 key Australian anti-vaccination Facebook groups open to the public last week. Ultimate success may be as much about public education as vaccine efficiency.

By October, if all goes to plan, we could be immune to lockdowns and the like. That would be a great outcome.

Taken from "Pearls and Irritations"