

Covid-19 is Dangerous, Not Vaccines

By: 20 scientists, doctors, and concerned individuals

Now more than ever, get vaccinated.

One of the increasingly disturbing things about misinformation on Covid-19 vaccines, particularly in the Malaysian context, is the way it is disguised with a veneer of legitimacy through medical credentials and official-sounding sources.

Those questioning the safety of Covid-19 vaccines claim they are not anti-vaxxers. However, the tone of their messages – containing the implicit call to avoid Covid-19 vaccines, even those approved by regulators – is disturbingly similar to vaccine-hesitant people across the board who oppose shots like the measles, mumps and rubella (MMR) vaccine for their children.

Persistent misinformation about the MMR vaccine causing autism (it does not) had originated from a scientific study published by Dr Andrew Wakefield in 1998 in the renowned medical journal, *the Lancet*. It has since been retracted because the claim was deemed fraudulent. Accuracy of information about Covid-19 vaccines depends on the science and proven data.

Let us be clear. Any approved Covid-19 vaccine is given the greenlight because regulators determine, based on review of clinical trial evidence and data, that it is safe and effective, and carries significantly more benefits than risks. Arguably, it is far more harmful to one's health to contract Covid-19 than to take an approved vaccine for the disease.

Although the majority of Covid-19 patients in Malaysia experience no or mild symptoms, the Ministry of Health notes that the percentage of people in the moderate to severe stages 3 to 5 has increased from 7 per cent to 11 per cent. For this group of patients, the risk of ventilation and death is very real.

According to the Institute for Clinical Research, 87 per cent of reported Covid-19 deaths in Malaysia had at least one underlying health condition, based on 335 Covid-19 deaths analysed as of November 22. Nearly two-thirds of Covid-19 victims were aged 60 years and above. The mortality rate for people aged 70 years and above is about 9 to 10 per cent, which is substantial.

About 61 per cent of Covid-19 fatalities in Malaysia had high blood pressure, followed by diabetes (41 per cent), heart disease (24 per cent), and high cholesterol (19 per cent). There is high prevalence of non-communicable diseases in the adult population: diabetes (18 per cent), hypertension (30 per cent), and high cholesterol (38 per cent), according to the National Health and Morbidity Survey 2019. This means that a large number of young and middle-aged people in Malaysia are at risk of developing severe Covid-19 disease and potentially dying from it.

Immunisation is even more important for these vulnerable groups.

Covid-19 is not a simple flu or respiratory illness. While most people who are infected recover quickly, some patients can have symptoms lasting for weeks, or even months after recovery from acute illness, according to the United States' Centers for Disease Control and Prevention (CDC). Even people with mild Covid-19 can experience persistent or late symptoms. The most commonly reported long-term symptoms are fatigue, cough, joint and chest pain, among others. Other reported long-term symptoms include difficulty with thinking and concentration (known as "brain fog"), depression, and muscle pain.

Yet more serious long-term complications have also been reported, though these appear to be less common. These include inflammation of the heart muscle, lung function abnormalities, acute kidney injury, dermatologic conditions like rash and hair loss, and neurological conditions like smell and taste problems and sleep issues. Even severe psychotic symptoms have been reported in a small number of Covid-19 patients in the US, UK, and Spain, who had not previously experienced mental health problems.

Prevention is better than cure.

Statements propagating fear-mongering and pseudoscience that attack Covid-19 vaccines' mRNA (messenger RNA) technologies – which have now been approved by the US' Food and Drug Administration, the UK's Medicines and Healthcare Products Regulatory Agency, the European Medicines Agency, and the regulatory bodies of at least seven other countries – risk turning Malaysians off all Covid-19 vaccines entirely, as some may not differentiate between one type of Covid-19 vaccine with another. mRNA and vector-based therapies have actually been used for nearly a decade to treat people with cancer, inherited immunodeficiencies, and metabolic, eye, and neuro-muscular diseases.

While the speed of the development of Covid-19 vaccines is unprecedented, mRNA technology has been around since the early 2000s, while the early proof-of-concept of using gene-based therapeutics to produce the proteins necessary to combat disease was published back in 1990.

Scientists started work as soon as the Covid-19 pandemic hit the world. Large-scale clinical trials were conducted through global collaborative efforts by governments, international institutions, the private sector, research institutions, and nonprofits. These Covid-19 vaccine studies have been run with the same scientific rigour as for any other vaccines.

mRNA vaccines do not affect human DNA. The mRNA never enters the nucleus of the cell, where our DNA (genetic material) is kept. The vaccine simply contains instructions to the cell to make a harmless piece of the spike protein on the virus that causes Covid-19. The immune system then attacks this new protein; more importantly, our immune system will remember how it looks like. The vaccine's mRNA instructions are broken down and later disposed of. When the coronavirus enters our body, our immune system now recognises the spike protein and launches an attack like it did previously, destroying the virus before it can take hold, replicate, and make us sick.

A safe vaccine does not mean it is completely free from side effects or adverse events. The H1N1 vaccine, for example, was linked with an extremely small risk of Guillain-Barré syndrome (a rare autoimmune disorder causing nerve damage), affecting 1.6 cases among every one million people vaccinated. Natural influenza causes 17 cases of the Guillain-Barré syndrome per million people.

However, vaccination produces overwhelmingly greater benefits to individuals and society than the risks due to adverse reactions. It is because of vaccines that infectious diseases such as polio and measles have been largely eliminated in many countries, or totally eradicated as is the case with smallpox.

This pandemic has ground the global economy to a halt and cost the lives of more than 1.8 million people worldwide. In Malaysia, Covid-19 has killed nearly 500 people. Cases continue to increase and are expected to surge right through 2021 – a vaccine is one possible solution to end the acute phase of the Malaysian epidemic.

Repeated doubts about the government's procurement of Covid-19 vaccines may contribute to vaccine hesitancy. Concerns about vaccine procurement and the immunisation programme should be addressed with full transparency and public accountability through Executive oversight by Parliament's Public Accounts Committee and the Parliamentary Select Committee on Health, Science and Innovation. Persistent suspicion shifts the national discourse away from the more important issues of planning and implementing the inoculation campaign.

The US and the UK are struggling with various challenges in administering the Covid-19 vaccines they have already received. It is highly likely that Malaysia will also encounter similar obstacles rolling out its vaccination programme after we receive the doses ordered.

Critics are free to call for more data and transparency related to all aspects of Covid-19 vaccines. However, such criticism should not be clouded with anti-capitalist sentiment and political ideology.

The National Pharmaceutical Regulatory Agency (NPRA) uses a rigorous and thorough process in evaluating all vaccines and medicines for use in Malaysia. The critical aspects of a vaccine that we should be concerned with, which have been entrusted to the NPRA, are its efficacy and safety.

There are still many unknowns where the vaccines are concerned. Will the efficacy seen in clinical trials be translated into real-world effectiveness? Many factors affect the effectiveness of a vaccine in the community setting, the largest being the sheer logistics of vaccinating an entire adult population. We hope these vaccines will be the beginning of the end to the Covid-19 nightmare, but more monitoring and data will be required to show this as they are rolled out in our and other nations.

It is important to impress on all of us that receiving the vaccine does not give us the liberty to disregard all the current SOPs. Caution will still be required and SOPs will need to be maintained as control of Covid-19 is achieved not just locally but also globally.

Malaysia's national Covid-19 vaccination programme requires an "all-of-society" approach. We must work together to overcome serious immunisation hurdles when the vaccines finally arrive in our country. Fire-fighting constant misinformation and doubt distracts from the work that lies ahead.

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