WHY THAT SHOT IN THE ARM ISN’T JUST ANOTHER JAB

Vaccination will be crucial for the world to move on from the pandemic. What are the implications for your health, your safety, your movements and your job?

BY LEE MEIXIAN

VACCINATION is a personal choice, but what if you couldn’t board an aeroplane because you decided not to take the jab, or have to cut down on business travel in keeping with your company’s policy, or have to serve the usual 14-day stay-home notice (SHN) long after it has been cut short for others who have taken the vaccine? Worse, what if your job role has to change from front-end to back-end so that you interface less with clients, or you have to work from home more frequently as a result of your decision not to take the jab? Consultants note the need to not discriminate against those who have exercised their choice not to take the vaccine, be it for personal, medical or religious reasons.

But questions like these remain up in the air. The consensus appears to be that going forward, it will be easier to take the vaccination than to be part of the minority that doesn’t. >>>
Leading vaccines

As of Feb 18, 2021, The New York Times Coronavirus Vaccine Tracker listed 70 vaccines in human trials, and 89 in preclinical trials. Here are the top 10 leading vaccines:

<table>
<thead>
<tr>
<th>Developer</th>
<th>Route</th>
<th>Phase</th>
<th>Efficacy</th>
<th>Dose</th>
<th>Type</th>
<th>Storage</th>
<th>Authorization/Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfizer-BioNTech</td>
<td>mRNA</td>
<td>3</td>
<td>95%</td>
<td>2 doses, 3 weeks apart</td>
<td>Muscle injection</td>
<td>Freezer storage only at -70°C</td>
<td>Albania, Argentina, Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Ecuador, E.U. islands, Greenland, Iceland, Israel, Japan, Jordan, Kuwait, Mexico, Morocco, New Zealand, Norway, Oman, Panama, Philippines, Qatar, Saint Vincent and the Grenadines, Saudi Arabia, Serbia, Singapore, South Africa, Switzerland, UAE, US, US Virgin Islands, Vietnam</td>
</tr>
<tr>
<td>Moderna</td>
<td>mRNA</td>
<td>3</td>
<td>94.5%</td>
<td>2 doses, 4 weeks apart</td>
<td>Muscle injection</td>
<td>30 days with refrigeration, 6 months at -20°C</td>
<td>Canada, E.U., Faroe Islands, Greenland, Iceland, Ireland, Israel, Norway, Qatar, Saint Vincent and the Grenadines, Singapore, Switzerland, US, UK, US Virgin Islands</td>
</tr>
<tr>
<td>Gamaleya</td>
<td>AD5, Ad5</td>
<td>3</td>
<td>91.6%</td>
<td>2 doses, 3 weeks apart</td>
<td>Muscle injection</td>
<td>Freezer storage; developing an alternative formulation that can be refrigerated</td>
<td>Algeria, Argentina, Armenia, Bahrain, Belarus, Bolivia, Gabon, Guinea, Hungary, Iraq, Kazakhstan, Lebanon, Libya, Morocco, Mongolia, Montenegro, Myanmar, Nicaragua, Pakistan, Paraguay, Republic of Korea, Russia, Saint Vincent and the Grenadines, Serbia, Tunisia, Turkmenistan, UAE, Uzbekistan, Venezuela</td>
</tr>
<tr>
<td>Oxford-AstraZeneca</td>
<td>ChAdOx1</td>
<td>3</td>
<td>82.4%</td>
<td>2 doses</td>
<td>Muscle injection</td>
<td>Stable in refrigerator for at least 6 months</td>
<td>Argentina, Bahrain, Bangladesh, Brazil, Chile, Dominican Republic, Ecuador, El Salvador, India, Iraq, Iran, Israel, Mexico, Morocco, Myanmar, Nepal, Pakistan, Philippines, Saint Vincent and the Grenadines, South Africa, South Korea, Sri Lanka, Thailand, UK, Vietnam</td>
</tr>
<tr>
<td>Cantaro Biologics</td>
<td>Ad5</td>
<td>3</td>
<td>65.7%</td>
<td>Single dose</td>
<td>Muscle injection</td>
<td>Refrigerated</td>
<td>Mexico, China (military use), Pakistan</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>Ad5</td>
<td>3</td>
<td>87% in US, 66% in Latin America, 57% in South Africa</td>
<td>Single dose</td>
<td>Muscle injection</td>
<td>Up to two years frozen at -20°C, and up to three months refrigerated at 2-8°C</td>
<td>Saint Vincent and the Grenadines</td>
</tr>
<tr>
<td>Vector Institute</td>
<td>Protein</td>
<td>3</td>
<td>Unknown</td>
<td>2 doses, 3 weeks apart</td>
<td>Muscle injection</td>
<td>Stable in refrigerator for up to two years</td>
<td>Russia, Turkmenistan</td>
</tr>
<tr>
<td>Novavax</td>
<td>Protein</td>
<td>3</td>
<td>89.3%</td>
<td>2 doses, 3 weeks apart</td>
<td>Muscle injection</td>
<td>Stable in refrigerator</td>
<td>-</td>
</tr>
<tr>
<td>Sinopharm</td>
<td>Inactivated</td>
<td>3</td>
<td>79.3%</td>
<td>2 doses, 3 weeks apart</td>
<td>Muscle injection</td>
<td>Unknown</td>
<td>Bahrain, Cambodia, China, Egypt, Hungary, Iraq, Jordan, Laos, Malaysia, Morocco, Pakistan, Peru, Serbia, Seychelles, UAE</td>
</tr>
<tr>
<td>Sinovac</td>
<td>Inactivated</td>
<td>3</td>
<td>50.4%</td>
<td>2 doses, 2 weeks apart</td>
<td>Muscle injection</td>
<td>Refrigerated</td>
<td>Azerbaijan, Bolivia, Brazil, Cambodia, China, Chile, Colombia, Indonesia, Laos, Turkey, Uruguay</td>
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</table>

Dale Fisher, a senior infectious diseases expert at the National University Hospital, who also chairs the Global Outbreak Alert and Response Network at the World Health Organization (WHO), says that eventually not being vaccinated will become quite inconvenient for people, whether they work or have to do daily needs before entering any conference. “I believe – and this is not an announcement – that there will be a time when you can allow your antibody or vaccine status and people will say, ‘Yes, you are allowed through.’ So I do believe that even those that are slightly vaccine-hesitant will just eventually say it’s too inconvenient to toe the line and would rather just have it and be like everyone-else.”

It is already happening. Qantas Airways has said it will require passengers to provide proof that they have taken the Covid-19 vaccine before they fly. Some companies overseas are already applying a ‘no jab, no job’ policy for staff. In the United States, the Equal Employment Opportunity Commission last December issued guidance that employers can legally require most workers to be vaccinated, barring those with legitimate reasons for not being able to.

Meanwhile, the International Air Transport Association is also developing a digital Covid-19 vaccine passport for travellers as a way to certify their vaccination status and Covid-19 test results and share the information with airlines and border authorities. Malaysian Prime Minister Muhyiddin Tummen has said that although the government has not made it mandatory for the people to get vaccinated, those who refuse inoculation could face restrictions in moving around or engaging in businesses in the future.

In Singapore, Education Minister Lawrence Wong, who co-chairs the multi-ministry task force on Covid-19, has also spoken of the “tangible benefits” that those who get their vaccine shots. They may not have to serve 14N, or will at least be allowed to serve a shorter one.

Business incentives

Some retail and F&B food and beverage operators in the US are already incentivising their employees to get inoculated to allure customers’ concerns about health safety. In Singapore, OCBC last month said it would engage medical experts to educate its 10,000-strong workforce about the vaccine to address their concerns, and introduce additional benefits such as enabling employees to take a day off on the day of each vaccination, and offering them private taxi reimbursement to and from the vaccination clinics. There is added pressure for healthcare workers to be vaccinated, given the liability involved if they unknowingly transmit the disease to a patient, especially since the virus lends itself to asymptomatic transmission. Several hospitals The Business Times spoke to declined comment on whether job roles will change for those who decide not to take the vaccine. A spokesperson for the Agency for Integrated Care (AIC), when asked if nursing homes will mandate vaccination or more healthcare workers that refuse vaccination to a different role not involving patient care, replied it continues to encourage all community care staff to get vaccinated, if they are medically eligible to ensure their safety and health, as well as that of the vulnerable seniors. But for those not vaccinated, AIC will provide them appropriate personal protective equipment, hand sanitisers, and regular surveillance testing for Covid-19, as well as give them prompt medical attention if they feel unwell.

Low Kian Wei, medical director at health and security services firm International SOS says: “Particularly for industries that have a lot of interaction with consumers, it will be beneficial for them to ensure that they have all the policies in place and that their employees are vaccinated. This sends a message to the general public that it is safe to do business with them.”

But he warned that business leaders and human resource managers need to handle situations sensitively where employees refuse to take the vaccine shot, to ensure that they are not discriminating or for their choice. “We should never assume that they are anti-vaxxers, and we have to speak to them to understand the reasons. There are plenty of personal, medical or even religious reasons that one is uncomfortable taking the shot, so the company should see if anything can be done to alleviate their fears, or to facilitate their vaccination process.”

Source: The New York Times, Singapore
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In a situation where the employer is insistent on getting vaccinated, the company may need to see if the job scope of the employee has to be altered in a non-discriminatory way, such as by taking them to a different function area, at least until herd immunity has been achieved.

But an inevitable reality for this group of people may be that they will be accorded slightly different treatment. For instance, they may face different corporate risk tolerance for travel and more stringent quarantine processes when they return.

Some have asked if employers can pay employees to get vaccinated. The consensus opinion is that this will introduce potential ground for discrimination, especially for employees who cannot get vaccinated. The basic principle is that if someone is allergic to a vaccine, they should not be forced to be vaccinated.

More importantly, paying people to do something inevitably increases the public’s suspicion that there is profiteering being made by the pharma and vaccine industry.

Vaccination hesitancy

Government efforts to urge vaccination have met with some resistance from a growing minority who are urging people not to take it. While not prevalent in Singapore, it is spreading in the US, the United Kingdom, Japan and India.

On the extreme end, some of these anti-vaxxers believe Covid-19 to be a conspiracy, and vaccines to be a big capital scheme. Their accusations stem from a lost trust in the government, further fuelled by misinformation.

More concerning, is the worry about the rushed vaccine development process and side effects that may cause. Even in Singapore, shortly after the government announced that it has approved the Pfizer BioNTech vaccine, word started spreading on social media that mRNA vaccines like the Pfizer BioNTech one might alter the DNA genome.

Another common myth for vaccination goes that it is “better to get ‘natural immunity’ by getting infected than to get a vaccine shot.” Prof Fisher says people are forgetting the severity of Covid-19. It is also easier to treat and has less adverse events from vaccination than from the disease itself.

Doctors in Singapore have come out to correct falsehoods and measure the community that no comers were made by the vaccine development process. Instead, the ramped-up process was made possible by the world conditions happening at the same time, coupled with immense government support (see graph).

Shawn Vasoo (of the National Centre for Infectious Diseases) says that large sample sizes were involved in the clinical trials, which allows for representative populations and a better study of the rarer side effects. Action can be taken to pull a product from the market, or to make further recommendations on the usage if anything happens.

Associate Professor Jenny Low, senior consultant from the National University Hospital, believes that with such large sample sizes involved in the clinical trials, which allows for representative populations and a better study of the rarer side effects.

Dr Low also believes that doctors’ reluctance, as the medical fraternity continues to fight against people’s emotional inclinations towards vaccine horror stories and bad news.

Dispelling hesitancy

To make a level-headed decision, people need to have transparency and clarity about not just the benefits of taking the jab but also the risks and adverse events. Associate Professor Richard Sugrue from the School of Biological Sciences at NTU Singapore, says the source matters, too. “It’s probably best that such messages are provided by experienced domain experts in the fields of vaccines and vaccine delivery such as vaccine graduates,” he adds.

The opposite of honest, consistent message can lead to unnecessary confusion, which, as an example, threw Americans into confusion about the most basic of facts such as whether masks are helpful in reducing transmission.

There needs to be a trusted and community-led effort to talk to the public in a way that the general practitioner says. “It’s time for your vaccine,” then people are much more likely to be accepting, as opposed to if you ask, “Are you sure you want the vaccine?” Like school vaccination, you can opt out, but it is more normal to have the vaccine.

Right now, there is no way to measure vaccine hesitancy in Singapore as it is still early days. As of 14 February, close to 250,000 people have received their first dose, of which about 55,000 have also received their second dose. Vaccine centres are still vaccinating the elderly and frontliners while healthcare workers, and a cleaner pattern will only emerge when the vaccine programme has been rolled out to the wider population.

There have been calls of vaccine take-up intentions globally. One by consulting firm Kantar last November showed two thirds of Singaporean respondents saying that they would seriously affect their health if they were to catch Covid-19, which was a higher percentage than Australia, UK, US and other European countries.

While most people like a knee-jerk, this statement is meaningful because people must believe there is a problem before they will agree to the solution. Prof Fisher says, this is why it is a challenge to convince those who think Covid-19 is a big conspiracy theory to take the jab.

The Kantar poll also showed that 28 per cent of respondents in Singapore said that they would “definitely” get a vaccine when it is available, with 45 per cent saying they “probably” would.

But Dr Low from International SOS says that, as with political polls, polling of vaccine intentions can never be fully reflective as sentiments change over time with unfolding events. “For example, if the situation worsens in Singapore, you will see a lot more people keen to take it because the threat is right in your face, whereas if we are doing very well, more people may adopt a wait-and-see approach because the threat is further away.”

Besides traditional and online media, the corporate arena is also a way to reach large populations because there is a certain level of trust with employers and among co-workers. SOS International works with multinational corporations that have global assets to help them manage their employees’ vaccination program and travel arrangements, giving that the different countries they operate in are progressing at different paces with their respective vaccination programmes.

Dr Low believes that the next step in Singapore could be to perform vaccinations in the workplace, similar to how staff vaccination is done at better healthcare institutions here.

How the vaccine development process was sped up

1. A concerted global effort among scientists, companies, and governments to invest in vaccine research, testing, and manufacturing to speed up the process.
2. The mRNA vaccine technology has been around for more than a decade. Researchers using mRNA technology for cancer and genetic disorders could use this knowledge to create Covid-19 vaccines.
3. Many volunteers came forward for the clinical trials, allowing pharmaceutical companies to quickly assess large sample sizes for their drug trials.
4. Regulators worked quickly to give the necessary approvals.

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