

Memo

Guidance for testing in recently vaccinated populations: COVID-19 Vaccine Technical Advisory Group (CV TAG) advice

Date: 20 April 2021

To: Joanne Gibbs, Director of National Operations, COVID Vaccine Programme

Cc: Dr Ian Town, Chief Science Advisor
Joe Bourne, Regional Liaison, Midlands
Shona Meyrick, Group Manager Operations, COVID-19 Border and Managed Isolation

From: Sue Gordon, Deputy Chief Executive COVID-19 Health Systems Response

For your: Information

Purpose of report

- To outline the COVID-19 Vaccine Technical Advisory Group's (CV TAG) advice for new guidance for testing in the days, weeks and months following a person's vaccination.

Background

- The Border Operations team has asked that testing guidance for MIQF and other border workers be updated to take account of the vaccination status of border workers. The advice will also apply to all other groups being vaccinated in Tier 2 (health workers and other high risk) and also Tier 3 (including general public).
- As the COVID-19 vaccines are quite reactogenic, it will be common for people to present with symptoms post-vaccination. The table below summarises the frequency of local and systemic reactions after administration of the Pfizer vaccine.

Frequency of solicited adverse events within 7 days of vaccination (reactogenicity subset of phase 2/3 safety population, 18-55 years of age) – Pfizer/BioNTech mRNA vaccine

Local reactions	Dose 1* N=2291	Placebo** N=2298	Dose 2† N=2098	Placebo†† N=2103
Pain	83.1%	14.0%	77.88%	11.7%
Redness	4.5%	1.1%	5.9%	0.7%
Swelling	5.8%	0.5%	6.3%	0.2%
Systemic reactions	Dose 1*	Placebo**	Dose 2†	Placebo††

Fever ($\geq 38^{\circ}\text{C}$)	3.7%	0.9%	15.8%	0.5%
Fatigue	47.4%	33.4%	59.4%	22.8%
Headache	41.9%	33.7%	51.7%	24.1%
Chills	14.0%	6.4%	35.1%	3.8%
Vomiting	1.2%	1.2%	1.9%	1.2%
Diarrhoea	11.1%	11.7%	10.4%	8.4%
Muscle pain (new or worsened)	21.3%	10.8%	37.3%	8.2%
Joint pain (new or worsened)	11.0%	6.0%	21.9%	5.2%

Source: FDA Briefing Document: Pfizer-BioNTech COVID-19 Vaccine ([CDC](#))

The median onset of systemic adverse events in the vaccine group in general was 1 to 2 days after either dose and lasted a median duration of 1 day.

Issues

- Current guidance was developed when no one had been vaccinated, and few had historical COVID-19 infection. Now, border workers are being vaccinated; as at 21 March, 17,000 border workers and 5,000 of their household contacts had received at least their first dose.
- Travellers will also present differently. A sharp increase in travel numbers will introduce people who have had any one of the several vaccines in use globally, and more people who have had previous (historical) infection.
- Messaging in early March about testing to the general public noted that COVID-19 symptoms associated with new variants of concern could include fatigue and muscle aches. Border operations staff noted that this advice conflicted with the testing guidance for recently vaccinated people, which stated that

"In the 48 hours post immunisation, so as long as a person was well enough they could come to work and not be tested if their symptoms were restricted to just fatigue and/or muscle aches."

Advice sought

- The Science and Technical Advisory team prepared a rapid literature review of vaccine side effects compared with symptoms of COVID-19, which included the current testing guidance. The review was provided to the CV TAG for consideration.
- Advice from the CV TAG informed an update of Ministry of Health's Testing Guidance. Ideally, we should update testing guidance not only for recently vaccinated border workers, but for all vaccinated populations.
- The final guidance will be distributed and used widely by Healthline, pharmacies, GPs and other vaccinators.

CV TAG advice

- The CV TAG's advice was sought on 23 March. The Group considered these questions:

- How will vaccines modify the symptoms of an active infection? How will that vary by time since vaccination (eg, first few days, weeks, subsequent months)? How will that vary by vaccine type (mRNA, etc)?
- Which symptoms, if any, may indicate a recent infection rather than a recent vaccination?
- What evidence is there for reduction of transmission risk from an active infection in the days and weeks immediately after a vaccination?
- Are there any other questions or issues we should consider when updating testing guidance?

11. CV TAG noted that:

- Anosmia and respiratory symptoms are unique to COVID-19 infection and have not been reported after any vaccinations.
- Post-vaccination side effects decline in severity over time. COVID-19 infection is more likely if symptoms continue after 48 hours or if they worsen rather than improve.
- Vaccine effectiveness is less than 100%, so infection should always be considered as a possible cause of symptoms in people at high risk of exposure.

12. CV TAG suggested that the guidance be contextual and based on the level of risk management, e.g., Tier 1 workers are at high risk of infection whereas Tier 2 workers are at low risk of infection (outside of an outbreak).

Draft guidance

Testing guidance within 48 hours of a vaccination

As the COVID-19 Pfizer/BioNTech (Comirnaty) vaccine is particularly reactogenic, it will be common for people to present with symptoms post-vaccination. Post-vaccination symptoms have generally been more pronounced after the second dose of the vaccine. The systemic reactions to the vaccines can include fatigue, headache and muscle aches and pain, which are all also common symptoms of COVID-19 infection.

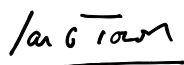
Because vaccine effectiveness is less than 100%, COVID-19 infection should always be considered as a possible cause of symptoms in people at higher risk of exposure.

When endeavouring to distinguish COVID-19 symptoms from reactions to vaccines, refer for testing anyone who presents with one or more of the following symptoms within 48 hours of receiving the first or second dose of any vaccine:

- *temporary loss of the sense of smell or taste*
- *respiratory symptoms (e.g. sore throat, cough, shortness of breath, sneezing/runny or blocked nose)*
- *generalised muscle aches which are worsening with time*
- *fever of 38 degrees Celsius or higher.*

Next steps

13. The draft guidance was reviewed by CV TAG and signed out for April update of testing guidance.



Dr Ian Town

Chief Science Advisor and

Chair of the COVID-19 Vaccine Technical Advisory Group