MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 3 August 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k)
Chair:	Ian Town
Members:	David Murdoch, Ian Frazer, James Ussher, Jono Hoogerbrug, Nikki Moreland, Nikki Turner, Peter McIntyre, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Andi Shirtcliffe, Brooke Hollingshead, Daniel Bernal, Edwin Reynolds, Fiona Callaghan, Shayma Faircloth,
Guests:	Christian Marchello, Kris Golding
Apologies:	Caroline McElnay, Elizabeth Wilson, Helen Petousis-Harris, Juliet Rumball-Smith, Niki Stefanogiannis, Sean Hanna

1.0	**Welcome and previous minutes** Ian Town welcomed all Members, Attendees and Guests in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG). Minutes of the last meeting (27 July 2021) were accepted.
2.0	**Science Updates** The Chair advised that in future, the science documents on the vaccines and research in children will be moved to the back of the materials as an appendix. The documents will be updated for the fortnightly meetings, however the agenda will include a discussion prompt once a month.
3.0	**Research in children** Item covered under 2.0, and the same discussion prompt will apply for future meetings.
4.0	**Myocarditis Recommendations Update** The Chair updated CV TAG on progress with the final recommendations on myocarditis. • The Director-General has accepted the recommendations. An announcement and implementation plan for extending the dosing interval is forthcoming. • It will result in significant programmatic changes and has important equity considerations, however the emphasis on distributing first doses to priority groups has been noted and accepted.
5.0	**Decision to Use Pfizer 12- to 15-year-olds and Children Priority Groups** • The challenges posed by the Delta variant and emerging data on differences in clinical severity among children were discussed with respect to vaccination in children.

	• Earlier advice had been that a broader decision on vaccinating 12- to 15-year-olds should be deferred. • Aotearoa New Zealand's lack of community transmission was noted as an important consideration in making this decision. • An exception should be made for priority groups of 12- to 15-year-olds that are at higher risk from COVID-19 due to prior comorbidities, as are outlined in the draft memo, which CV TAG supported. • Vaccinations as part of outbreak management, for example in schools, was also considered an exception. • Opportunities provided by mass vaccination events and vaccinating whānau together were noted as important considerations. • The Decision to Use for 12 to 15-year-olds and memo on priority groups will be provided to the Director-General and the COVID-19 Vaccine and Immunisation Programme (CVIP).
6.0	**Dosing interval for Pfizer** • The Request for Advice (RfA) on this topic was reviewed. • The data on improved immune responses with a delayed interval was noted as promising. • It was noted that, in the event of an outbreak, there would be reduced protection for those who have only had one dose. CV-TAG therefore encouraged surge capacity to be built into the programme in case of an outbreak. • Exceptions to the longer intervals among immunosuppressed people (e.g., with solid tumours) was discussed, and the Science and Technical Advisory team will progress consultation and discussion on these exceptions. • The RfA on evidence on the dosing intervals will be shared with the Director-General.
7.0	**Future Vaccine Portfolio** • The Ministry's Policy team has requested CV TAG advice on considerations for ongoing purchasing for New Zealand's vaccine portfolio from a scientific perspective. • The RfA prepared by the Science and Technical Advisory Team on this topic was reviewed. Data on immunity, 'booster' doses, safety concerns and the impact of variants was discussed. • Data on long-term immunogenicity and antibody levels are still emerging, however initial data suggests immunity is long-lasting (at least 8 months for antibody levels). Currently there are no precise correlates of protection, however the presence of neutralising antibodies is a useful measure. • Further evidence on immunogenicity and clinical outcomes are awaited. • It was noted that there may be other factors impacting purchasing outside of scientific or clinical evidence, and that some countries have begun purchasing booster doses. • Local immunogenicity data needs to be incorporated into the Request for Advice, and it was noted that VAANZ would be collecting some further local information in their clinical trial currently underway. • Within the wider portfolio, it was noted that a formal application had not yet been received by Medsafe from Novavax. • Evidence regarding heterologous vaccine schedules is emerging, and will be a consideration for those individuals who require an alternative to Pfizer.

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- The Science and Technical Advisory team will update the RfA, provide the advice to Policy, and keep a watching brief as the evidence emerges.

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MMR/Influenza Coadministration

- The Child and Community Health Group in the Ministry sought advice on the recommended intervals between receiving the COVID-19 vaccination and influenza or MMR vaccinations. The RfA on this topic was reviewed.
- Currently a two-week gap between the COVID-19 vaccine and the influenza vaccine is recommended, and four-week gap with live vaccines such as MMR.
- These intervals are a programmatic burden for the primary care sector and will become more so if vaccination in 12-15 year olds is progressed.
- Based on first principles of vaccinology, it is not expected that there would be a problem with reducing timeframes, however it was noted that there are limited data from clinical trials or observational studies.
- Preliminary results from trials and a summary of when data is expected should be included in the RfA by the Science and Technical Advisory team for CV TAG's review. STA will continue to monitor evidence as it emerges.
- The Science and Technical Advisory team will bring together a working group to progress the discussion and draft recommendations, which will be brought back to CV TAG.

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Next Steps/Decisions Pending

None.

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Any Other Business

- The ability to access vaccination information for tertiary students in health disciplines was discussed, however the process was unclear with multiple systems operating.
- A review on the behavioural drivers of vaccine uptake within the context of Aotearoa New Zealand was discussed.

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Agenda items for next meeting

None.

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New Action Items Raised During Meeting

#	Agenda item	Actions	Action Owner
40	Decision to Use Pfizer 12 to 15-year-olds and Children Priority Groups	Update memo and RfA and circulate	Chair and Secretariat
41	Dosing interval	RfA shared with Director-General	Secretariat
42	Future Vaccine Portfolio	Update RfA and share with Policy	Secretariat
43	MMR/Influenza Coadministration	Update RfA with clinical trial data	Secretariat
44	MMR/Influenza Coadministration	Convene working group to draft recommendations	Secretariat

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Meeting closed at **11:59 am**

Next meeting: **Tuesday 17 August – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
34	Myocarditis after Pfizer Vaccination	Compile information on cardiac-related events associated with other vaccines in New Zealand's portfolio.	Secretariat	13/07 - Action raised 27/07 - Drafted. Awaiting peer review
39	Myocarditis after Pfizer Vaccination	Share draft messaging and timelines with CV TAG when available	Secretariat	27/07 - Action raised
40	Decision to Use Pfizer 12 to 15-year-olds and Children Priority Groups	Update memo and RfA and circulate	Chair and Secretariat	03/08 - Action raised
41	Dosing interval	RfA shared with Director-General	Secretariat	03/08 - Action raised
42	Future Vaccine Portfolio	Update RfA and share with Policy	Secretariat	03/08 - Action raised
43	MMR/Influenza Coadministration	Update RfA with clinical trial data	Secretariat	03/08 - Action raised
44	MMR/Influenza Coadministration	Convene working group to draft recommendations	Secretariat	03/08 - Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
33	Myocarditis after Pfizer Vaccination	Update message for Ministry of Health Comms on the risks of myocarditis.	Secretariat	13/07 - Action raised 27/07 – CVIP Comms and STA progressing.

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 17 August 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k)
Chair:	Ian Town
Members:	Elizabeth Wilson, Helen Petousis-Harris, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Sean Hanna, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Andi Shirtcliffe, Brooke Hollingshead, Daniel Bernal, Edwin Reynolds, Fiona Callaghan, Juliet Rumball-Smith, Niki Stefanogiannis, Shayma Faircloth, Pippa Scott
Guests:	Christian Marchello, John Tait, Kris Golding, Rachel Eyre, Tia Narvaez
Apologies:	Caroline McElnay, David Murdoch, Ian Frazer

1.0	**Welcome and previous minutes** Ian Town welcomed all Members and Attendees in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG). Mr John Tait, Chair of the Vaccine ISMB was welcomed. Minutes of the last meeting (03 August 2021) were accepted.
2.0	**Science Updates** Updates on the COVID-19 vaccines were highlighted: • There are reports that the US intends to grant full approval of Pfizer in early September. • The US Food and Drug Administration have amended their emergency use authorisations for Pfizer and Moderna to allow for the use of a third dose in certain immunocompromised people, specifically, solid organ transplant recipients or those who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise. • Pfizer have released preliminary data on third doses in adults showing increased neutralising antibody titres. • More data on the safety of vaccination among pregnant women has been released.
3.0	**Research in children** Updates on COVID-19 vaccine research among children were highlighted: • CV TAG requested information on whether any post-marketing larger summaries have been released relating to children. Some initial data from the CDC were shared, and this will be included in future updates.
4.0	**Vaccine Rollout Update**

	The daily vaccine report was presented to CV TAG. The rollout is proceeding at pace and ramping up to deliver 50,000+ doses per day. Supplies are now steady. The 2020 Health Service Utilisation is being used as the population denominator in order to monitor vaccination data by ethnicity.
5.0	**Dosing Interval for Pfizer** The Chair shared that the extension of the interval between doses was accepted by the Director-General and announced by the Prime Minister last week and was framed as providing greater population protection. The changes to the booking website have been implemented and this has freed up appointments for more first doses around New Zealand.
6.0	**Myocarditis after Pfizer Vaccination** An update on myocarditis cases was provided by the Chair: • The risk management communication relating to myocarditis was addressed with the announcement of the dosing interval extension. It was requested that references to increasing dosing intervals potentially providing some protection against myocarditis be removed from communications. This has been actioned. • An amendment to CV TAG's recommendations on myocarditis after Pfizer COVID-19 vaccination is needed to confirm that those "under clinical review by a cardiologist who should discuss the risk and benefits of vaccination" applies for 12- to 29-year-olds (and not 16- to 29-year-olds) once the extended age range has been approved and announced.
7.0	**Decision to Use Pfizer 12- to 15-year-olds** • CV TAG's recommendation that vaccination of 12- to 15-year-olds proceeds has been relayed to the Director-General and Vaccine Ministers. • Advice on promoting vaccination in whānau groups has been incorporated. • CV TAG requested the benefits of personal and family protection should be emphasised, rather than indirect benefits such as population protection. • The importance of vaccinating vulnerable groups among 12- to 15-year-olds was raised and discussed. It was noted that 12- to 15-year-olds considered Group 3 will be prioritised through another pathway and given codes to book.
8.0	**MMR/Influenza Coadministration** A draft memo reviewing evidence on coadministration of the COVID-19 vaccine with other vaccines (e.g. MMR/Influenza/HPV) was shared with CV TAG for discussion. • CV TAG discussed the immunisation programme in the context of concern about RSV outbreaks and impact on staffing, lagging vaccination rates for MMR and HPV, and knowledge of the prior impact of measles outbreaks on Māori and Pasifika. • CV TAG encouraged that all intervals between COVID-19 vaccines and other vaccines (with the exception below) be removed, and same-day coadministration be allowed. Such intervals were seen as a barrier to uptake of both the COVID-19 vaccine and other vaccinations. • An exception to same-day coadministration should be made for the live-attenuated shingles vaccine (Zostavax), where a 7-day interval is still required. • It was noted that younger people produce a good immune response to the COVID-19 vaccine and therefore even if this immune response is reduced by coadministration, it would still likely provide excellent protection. • The science on coadministration will continue to be monitored by the Science and Technical Advisory team.

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- The advice memo will be updated to reflect this messaging and shared with CVIP.

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Other COVID-19 Vaccines that New Zealand Could Recognise for Border Workers

- The Ministry's Policy team have requested CV TAG's advice on which other vaccines (in addition to Pfizer) should be recognised among border workers, and how to approach incomplete vaccinations among border workers.
- Medsafe has advised that the Ministry should adopt vaccines provisionally approved or authorised through emergency use provisions by:
    1. Medsafe themselves and
    2. Regulators in countries with similar regulatory systems to New Zealand, including the Australian Therapeutic Goods Administration, the US Food and Drug Administration, Health Products and Food Branch of Health Canada, United Kingdom Medicines and Healthcare products Regulatory Agency, and the European Medicines Agency.
- The current advice is that if someone is partially vaccinated and only has a single-dose of a two-dose course regimen from overseas, they should have a dose of Pfizer after at least four weeks. It was noted that there should be no upper limit on when the second dose can be administered, and courses did not have to be repeated if there had been a long interval. They also advised against the use of serology/antibody testing to check protection.
- CV TAG noted that any guidance to border workers could potentially apply more generally to all overseas arrivals.
- Sinopharm and Sinovac vaccines were discussed, with mention of recipients of these possibly needing a booster dose of Pfizer to provide sufficient protection. However, it was noted that a complete review of the evidence on protection offered by other vaccines and incomplete vaccination schedules is needed to inform the discussion.
- The Science and Technical Advisory team will conduct a review of the evidence and share this with CV TAG for discussion at a future meeting.

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Next Steps/Decisions Pending

None.

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Any Other Business

None.

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Agenda items for next meeting

None.

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New Action Items Raised During Meeting

<table>
<tr><th>#</th><th>Agenda item</th><th>Actions</th><th>Action Owner</th><th>Updates</th></tr>
<tr><td>34</td><td>Myocarditis after Pfizer Vaccination</td><td>Compile information on cardiac-related events associated with other vaccines in New Zealand's portfolio.</td><td>Secretariat</td><td>13/07 - Action raised
27/07 - Drafted. Awaiting peer review</td></tr>
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	45	Myocarditis after Pfizer Vaccination	Update memo to reflect age-band from evidence review	Secretariat	17/08 - Action raised
	46	MMR/Influenza Coadministration	Update memo and circulate to CV TAG and CVIP	STA	17/08 - Action raised
	47	Other COVID-19 Vaccines that New Zealand Could Recognise	Compile evidence on protection offered by other vaccines and partial vaccination	STA	17/08 - Action raised

Meeting closed at **11:59 am**

Next meeting: **Tuesday 31 August – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
34	Myocarditis after Pfizer Vaccination	Compile information on cardiac-related events associated with other vaccines in New Zealand's portfolio.	Secretariat	13/07 - Action raised 27/07 - Drafted. Awaiting peer review
45	Myocarditis after Pfizer Vaccination	Update memo to reflect age-band from evidence review	Secretariat	17/08 - Action raised
46	MMR/Influenza Coadministration	Update memo and circulate to CV TAG and CVIP	STA	17/08 - Action raised
47	Other COVID-19 Vaccines that New Zealand Could Recognise	Compile evidence on protection offered by other vaccines and partial vaccination	STA	17/08 - Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
39	Myocarditis after Pfizer Vaccination	Share draft messaging and timelines with CV TAG when available	Secretariat	27/07 - Action raised
40	Decision to Use Pfizer 12 to 15-year-olds and	Update memo and RfA and circulate	Chair and Secretariat	03/08 - Action raised 06/08 - Action closed

	Children Priority Groups			
41	Dosing interval	RfA shared with Director-General	Secretariat	03/08 - Action raised 03/08 - Action closed
42	Future Vaccine Portfolio	Update RfA and share with Policy	Secretariat	03/08 - Action raised 06/08 - Action closed
43	MMR/Influenza Coadministration	Update RfA with clinical trial data	Secretariat	03/08 - Action raised 03/08 - Action closed
44	MMR/Influenza Coadministration	Convene working group to draft recommendations	Secretariat	03/08 - Action raised 10/08 - Action closed

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 31 August 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k)
Chair:	Ian Town
Members:	Elizabeth Wilson, James Ussher, Helen Petousis-Harris, Ian Frazer, Nikki Moreland, Nikki Turner, Peter McIntyre, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Andi Shirtcliffe, Brooke Hollingshead, Daniel Bernal, David Murdoch, Edwin Reynolds, Fiona Callaghan, Juliet Rumball-Smith, Niki Stefanogiannis, Pippa Scott, Shayma Faircloth
Guests:	John Tait, Kris Golding
Apologies:	Caroline McElnay, Sean Hanna

1.0	**Welcome and previous minutes** Ian Town welcomed all Members and Attendees in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG), including Mr John Tait, Chair of the Vaccine ISMB. Minutes of the last meeting (17 August 2021) were accepted.
2.0	**Vaccine Rollout Update** The daily vaccine report was presented to CV TAG: • The rollout is proceeding at pace with high demand for vaccines. Drivers include more primary care providers, drive-through models, and reduced waiting time post vaccination. • Over one million people are now fully vaccinated, and vaccines will be open to everyone from 1 September. • The high demand for vaccines means additional supplies may be needed from mid-September onwards, and discussions are underway on how to source these. • Additional funding is being provided to support Māori and Pacific provider-led vaccination and wraparound services.
3.0	**MMR/Influenza Coadministration** An update on CV TAG's advice on the coadministration of the COVID-19 vaccine with other vaccines was given: • Finalised CV TAG advice recommending that the interval between administering the COVID-19 vaccines and other vaccines be removed (with the exception of the shingles vaccine Zostavax) has been shared with CVIP. • Advice will be formally announced a Steering Group.

4.0	**Myocarditis after Pfizer Vaccination** The recent death of a woman with myocarditis post-vaccination was discussed with CV TAG: • ISMB determined that vaccination was one of the causal factors. • It was noted that this myocarditis following vaccination is extremely rare. • The case is under review by a coroner and the case report will be published providing greater detail.
5.0	**Third Dose** This item was discussed with the agenda item below.
6.0	**Pfizer Dosing Error** A draft protocol was shared with CV TAG for providing guidance for incidents where a vaccination may have been missed: • The protocol is intended to be generic clinical guidance that can be applied to multiple situation and will also inform guidance for the potential missed vaccination incident at Highbrook. • It was discussed that smaller incidents should be managed under individualised clinical management plans, and a broader approach was needed for larger groups, with an allowance for clinical discretion. • For large groups, in general, third doses will be offered to all of those potentially affected. • Serology is of limited use for large groups due to high false negatives. Serology could be considered with smaller groups and if first dose was missed. • Further evidence on the link between dosing intervals and reactogenicity was requested from the Science and Technical Advisory team. • The memo will be updated and shared with CVIP. • The group also noted generally that there is good evidence on the safety and immunogenicity associated with administering third doses to the immunocompromised.
7.0	**Other COVID-19 Vaccines that New Zealand Could Recognise for Border Workers** Draft recommendations were shared with CV TAG on which vaccines could be recognised for work at the border: • The group noted the need for high degrees of protection for Border Workers to reduce the risk of onward transmission • It was discussed that, in general, New Zealand should recognise vaccines approved by Medsafe and Medsafe-recognised regulators: TGA, EMA, FDA, MHRA, Health Canada, and EU member states. • One exception to the above is that border workers that have received the single-dose adenovirus vaccine from Janssen/J&J, and no further COVID-19 vaccination, would require one dose of Pfizer to increase their level of protection. • Under this approach, as of 31 August, the following vaccines would be recognised for border work: Pfizer, AstraZeneca (approved by Medsafe); Moderna, Covishield (approved by Medsafe-recognised bodies); and Janssen/J&J plus one dose of Pfizer. • Partial and full vaccination with vaccines not recognised by these authorities should be given a single booster dose of the Pfizer vaccine.

	• It was noted that there was good evidence on the immunogenicity of giving Pfizer booster doses to adenovirus vector vaccines. • Recommendations will be updated, finalised, and shared with the Public Health team.
8.0	**Next Steps/Decisions Pending** None.
9.0	**Any Other Business** **Delta outbreak** An update was also provided on the current Delta outbreak, which is dominating work at the Ministry of Health and elsewhere. There are positive signs that Alert Level 4 is working. The number of current hospitalisations is creating a burden for the health system and extra resources are being sourced in case of further transfers from MIQ. **Targeted vaccines in an outbreak** The Chair thanked CV TAG for their advice on prioritising first doses in an outbreak. There has been an accelerated drive to expand the rollout, particularly in Auckland, which has met the required needs. **Third dose for immunocompromised** It was queried whether recommending a third dose for immunocompromised people was on the workplan. It was noted that many jurisdictions are moving in this direction, and there was reasonable evidence to support this, however it would be brought to CV TAG for formal consideration and discussion of the timing.
10.0	**Agenda items for next meeting**
11.0	**New Action Items Raised During Meeting**

#	Agenda item	Actions	Action Owner
48	MMR/Influenza Coadministration	Follow-up on announcement.	Chair
49	Pfizer dosing error	Compile further evidence on the link between dosing intervals and reactogenicity.	Science and Technical Advisory
50	Other COVID-19 Vaccines that New Zealand Could Recognise for Border Workers	Update memo and share with Public Health.	Science and Technical Advisory

Meeting closed at **11:55 am**

Next meeting: **Tuesday 07 September – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
34	Myocarditis after Pfizer Vaccination	Compile information on cardiac-related events associated with other vaccines in New Zealand's portfolio.	Secretariat	13/07 - Action raised 27/07 - Drafted. Awaiting peer review
48	MMR/Influenza Coadministration	Follow-up on announcement.	Chair	31/08 – Action raised
49	Pfizer dosing error	Compile further evidence on the link between dosing intervals and reactogenicity.	Science and Technical Advisory	31/08 – Action raised
50	Other COVID-19 Vaccines that New Zealand Could Recognise for Border Workers	Update memo and share with Public Health.	Science and Technical Advisory	31/08 – Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
45	Myocarditis after Pfizer Vaccination	Update memo to reflect age-band from evidence review	Secretariat	17/08 - Action raised 17/08 - Action closed
46	MMR/Influenza Coadministration	Update memo and circulate to CV TAG and CVIP	STA	17/08 - Action raised 27/08 - Action closed
47	Other COVID-19 Vaccines that New Zealand Could Recognise	Compile evidence on protection offered by other vaccines and partial vaccination	STA	17/08 - Action raised 30/08 – Action closed

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 07 September 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k)
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Andi Shirtcliffe, Brooke Hollingshead, Daniel Bernal, Edwin Reynolds, Fiona Callaghan, Shayma Faircloth
Guests:	Jared Solloway, Jono Hoogerbrug, Kath Blair, Kris Golding, Maria Cotter, Muhammad Mulla, Sarah Jefferies
Apologies:	Caroline McElnay, Juliet Rumball-Smith, John Tait, Niki Stefanogiannis, Pippa Scott, Sean Hanna,

1.0	**Welcome and previous minutes** Ian Town welcomed all Members and Attendees in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG). Minutes of the last meeting (31 August 2021) were accepted subject to the correction of attendance, with David Murdoch listed as Member and not listed as a Ministry of Health Attendee.
2.0	**Influenza Programme 2022** CV TAG advice was asked to comment on aspects of 2022 Influenza Programme planning: • There is potentially a high public health risk once borders begin to open with increased vulnerability. • A public/private joint model was seen as incompatible with public health principles and therefore universal access would be more effective, with prioritisation of vulnerable populations. • CV TAG recommended 'ring-fencing' vulnerable people by vaccinating their families and households around them for greater protection. • Māori and Pacific Peoples were also needing to be prioritised based on increased vulnerability to infection, being more likely to work in the essential workforce, and live in intergenerational households. Whānau-based approaches could be considered to encourage uptake, as is working well with the COVID-19 vaccine. Data on hospitalisation and mortality by ethnicity should be included in the recommendations. • Prioritising children and adolescents from aged 6 months to 18 years was also suggested, noting this would also reduce the burden in older people.

	• A strategic approach to the whole programme including measles, HPV and other campaigns was called for. The National Immunisation Solution will be in place in time for the influenza programme in 2022 and will be accessible for all providers.
3.0	**Guidance for Cancer Patients** Guidance from the Cancer Control Agency on the increased vulnerability of immunocompromised patients due to their lower vaccine response was presented to CV TAG for noting.
4.0	**Third Dose for Immunocompromised** Draft recommendations of administering additional doses to the immunocompromised were presented to CV TAG for discussion: • CV TAG noted that the recommendations need to be a clearly defined, evidence-based, list of conditions, including medications that may need to be listed e.g. corticosteroids. • The IMAC list of immunocompromised groups could form the basis of the list of conditions, and recommendations for COVID-19 vaccines should be aligned with IMAC information. • The recommendations must also outline the consent process and note that any authorised prescriber or medical practitioner will be able to administer doses. • This is an opportunity to reiterate that immunocompromised people are not ineligible for COVID-19 vaccination. • A subgroup of CV TAG will meet to revise the recommendations, and this will be brought back to CV TAG next week.
5.0	**Vaccines Recognised for Border Workers** The recommendations for vaccines recognised for Border Work has been finalised and shared with the Public Health Policy team.
6.0	**Vaccines Recognised for Returnees** CV TAG advice was sought from the Public Health Policy team on the list of vaccines that could be recognised for returnees. • The recommendations for vaccines recognised for Border Work has been finalised and shared with the Public Health Policy team. • In the context of New Zealand pursuing an elimination strategy with a population not yet fully protected by vaccination, CV TAG noted that a high level of protection was still needed. Within this context, no vaccine currently provides enough protection to remove public health measures or MIQ requirements completely. The list of vaccines recognised by Health Canada was noted as an example of an approach New Zealand could follow. • Equity issues were noted as of importance for people arriving to New Zealand, particularly with our Pacific neighbours and RSE workers. • A memo containing a list of recognised vaccines will be drafted, circulated to CV TAG for approval, and then shared with the Public Health Policy team. • CV TAG will continue to monitor all relevant information (including vaccine efficacy, variants, booster and/or third doses) and will update their recommendations.
7.0	**Next Steps/Decisions Pending** None.

8.0

Any Other Business

Vaccine rollout

The Chair provided an update on the vaccine rollout. Work on procuring additional doses is underway, and announcements are expected soon.

It was requested that the Secretariat collate information on the rollout plan final stages and data on equity coverage from CVIP to share at the next meeting.

Decision to Use Janssen

CV TAG were advised that New Zealand is likely to receive some doses this year (around 100,000). CV TAG's previous advice had been to make the vaccine available to a small group of people who are unable to take Pfizer, with the remaining doses being donated. Policy asked if the advice from CV TAG was the same or needed updating.

In general, the prior advice was considered to still be applicable.

Updated efficacy and effectiveness data was requested from the Science and Technical Advisory team and will be included in next week's regular Science Updates.

Extension dose protocol for missed vaccination events

This memo was finalised yesterday and shared with CVIP. It is intended to be a general framework applicable across the system but will also inform actions at Highbrook.

It was requested that a final version be shared with the Immunisation Advisory Centre.

9.0

Agenda items for next meeting

Science Updates

Third dose for immunocompromised

Vaccines recognised for returnees

10.0

New Action Items Raised During Meeting

#	Agenda item	Actions	Action Owner
51	Third Dose for Immunocompromised	Convene subgroup to redraft recommendations	Science and Technical Advisory
52	Vaccines Recognised for Returnees	Draft CV TAG recommendations and bring back to group	Science and Technical Advisory
53	Vaccine rollout	Request CVIP update on final stages of rollout plan	Secretariat
54	Vaccine rollout	Request CVIP data on coverage by ethnicity	Secretariat

	55	Extension dose protocol for missed vaccination events	Share finalised memo with Immunisation Advisory Centre	Secretariat

Meeting closed at **12:01pm**

Next meeting: **Tuesday 14 September – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
49	Pfizer dosing error	Compile further evidence on the link between dosing intervals and reactogenicity.	Science and Technical Advisory	31/08 – Action raised
51	Third Dose for Immunocompromised	Convene subgroup to redraft recommendations	Science and Technical Advisory	07/09 – Action raised
52	Vaccines Recognised for Returnees	Draft CV TAG recommendations and bring back to group	Science and Technical Advisory	07/09 – Action raised
53	Vaccine rollout	Request CVIP update on final stages of rollout plan	Secretariat	07/09 – Action raised
54	Vaccine rollout	Request CVIP data on coverage by ethnicity	Secretariat	07/09 – Action raised
55	Extension dose protocol for missed vaccination events	Share finalised memo with Immunisation Advisory Centre	Secretariat	07/09 – Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
34	Myocarditis after Pfizer Vaccination	Compile information on cardiac-related events associated with other vaccines in New Zealand's portfolio.	Secretariat	13/07 - Action raised 27/07 - Drafted. Awaiting peer review 07/09 – Closed

50	Other COVID-19 Vaccines that New Zealand Could Recognise for Border Workers	Update memo and share with Public Health.	ST	31/08 – Action raised 06/09 – Action closed
48	MMR/Influenza Coadministration	Follow-up on announcement.	Chair	31/08 – Action raised 08/09 – Action closed

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 14 September 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k) [redacted]
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Turner, Peter McIntyre, Sean Hanna, Tony Walls
Ministry of Health Attendees:	Andi Shirtcliffe, Brooke Hollingshead, Chriselle Braganza, Daniel Bernal, Edwin Reynolds, Fiona Callaghan, Juliet Rumball-Smith, Pippa Scott, Shayma Faircloth
Guests:	John Tait, Maria Cotter
Apologies:	Caroline McElnay, Kris Golding, Niki Stefanogiannis, Nikki Moreland, Sue Crengle

1.0	**Welcome and previous minutes** Ian Town welcomed all Members and Attendees in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG). Minutes of the last meeting (07 September 2021) were accepted.
2.0	**Science Updates** The Science and Technical Advisory provided an update on New Zealand's vaccine candidates: • There are no new data on Novavax, including on its use as a potential booster dose or in a heterologous schedule. Medsafe continues to wait for further evidence as part of its application. • Data has emerged for Pfizer that longer intervals between doses produce higher antibody titres but lower T Cell responses. There is also some evidence that immunity may wane markedly in the elderly, and some further evidence on vaccine efficacy against Delta. • Pfizer is now fully approved in Switzerland, the US, Brazil and Japan. • One article reported a higher risk of myocarditis for 12-15-year-olds in data from the US, however CV TAG noted there were significant issues with the data, and they await further information.
3.0	**Research in Children** This item was covered under agenda item 2.0 Science Updates.
4.0	**Vaccine Rollout** The Chair provided an update on the vaccine rollout to CV TAG: • The outbreak continues to dominate much of the work at the Ministry, however, the vaccine rollout continues at pace. The programme has adopted CV TAG's advice on using vaccines as a

	control measure in an outbreak through strong advice to Aucklanders to get vaccinated and greater efforts to roll the vaccine out in Auckland focussing on Pacific and Maori communities. • Further supply has now been secured from Spain and Denmark. • Data on vaccination rates for Māori and Pacific Peoples were shared showing some improvement in uptake.
5.0	**Third Dose for Immunocompromised** • A subgroup of CV TAG met to revise the recommendations on administering additional doses to the immunocompromised. • The UK's Joint Committee on Vaccination and Immunisation (JCVI) criteria for immunocompromise was noted as a clear and prescriptive set of criteria that New Zealand could follow capturing individuals with severe immunocompromise • Other important measures for the protection of the immunocompromised include: 'ring-fencing' vulnerable people by vaccinating household members; continuing other public health measures (such as masking). • The additional dose is a 'top-up' or third primary dose, as opposed to a booster dose. • Serology is not considered a useful tool, as a correlate of protection has not been established, among other reasons. • Discussion with Medsafe will be required in order to implement the additional dose. • In general, the additional dose is to be given 8 weeks or more after the second dose. • The JCVI recommendations will be further checked to ensure they align with the IMAC handbook for special groups, finalised, and shared with CVIP. It could be added to the Immunisation Handbook. • The extension dose protocol will also be updated to refer to this definition of immunocompromise, rather than the CDC list that was used prior.
6.0	**Vaccines Recognised for Arrivals** • Advice was sought on which vaccines would be required for travellers during the phased easing of border restrictions and whether the standard for Border Workers could apply, or whether the broader WHO list could be recognised (with Sinopharm and Sinovac). • In general, the broader WHO list was considered to provide an acceptable level of protection for people arriving to the country. All these vaccines offer some protection against severe disease. However, people fully or partially vaccinated with Sinovac and Sinopharm may need an additional dose of the Pfizer vaccine to gain sufficient protection. • Other considerations include: the requirements for children and adolescents (aged 12-15); the requirements for an additional dose for individuals already in the country who have received Sinopharm or Sinovac • Vaccine recognition policies for Border Workers should also be considered for healthcare workers as they also work in high-exposure settings. • A further and separate discussion is needed on Janssen as any decisions on additional dose requirements for arrivals may impact on the decision to use more broadly. • CV TAG will continue to monitor emerging evidence. The recommendations on vaccines to be recognised will be brought back to CV TAG prior to the pathways being finalised. • Preliminary advice that all inbound travellers going into MIQ from 1 November should have been vaccinated (with any vaccine) was noted and supported.

7.0	**Next Steps/Decisions Pending** None.
8.0	**Any Other Business** • **Extension dose protocol** The Chair updated CV TAG that the extension dose protocol for missed vaccination events has been implemented with letters out to those affected through the Highbrook incident. • **Decision to Use Janssen** The Chair also shared that New Zealand will be receiving about 100,000 doses of the Janssen vaccine initially. There is a small group of people who would prefer not to get an mRNA vaccine, and the Janssen vaccine will be made available to them in key centres, alongside those with a history of anaphylaxis.
9.0	**Agenda items for next meeting** Vaccines recognised for arrivals.
10.0	**New Action Items Raised During Meeting**

#	Agenda item	Actions	Action Owner
56	Third dose for immunocompromised	Finalise recommendations and share with CVIP	Science and Technical Advisory

Meeting closed at **12:04pm**

Next meeting: **Tuesday 21 September – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
49	Pfizer dosing error	Compile further evidence on the link between dosing intervals and reactogenicity.	Science and Technical Advisory	31/08 – Action raised
52	Vaccines Recognised for Returnees	Draft CV TAG recommendations and bring back to group	Science and Technical Advisory	07/09 – Action raised
56	Third dose for immunocompromised	Finalise recommendations and share with CVIP	Science and Technical Advisory	14/09 – Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
51	Third Dose for Immunocompromised	Convene subgroup to redraft recommendations	Science and Technical Advisory	07/09 – Action raised 09/09 – Action closed.
53	Vaccine rollout	Request CVIP update on final stages of rollout plan	Secretariat	07/09 – Action raised 14/09 – Action closed
54	Vaccine rollout	Request CVIP data on coverage by ethnicity	Secretariat	07/09 – Action raised 14/09 – Action closed
55	Extension dose protocol for missed vaccination events	Share finalised memo with Immunisation Advisory Centre	Secretariat	07/09 – Action raised 09/09 – Action closed

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 21 September 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k) [redacted]
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Brooke Hollingshead, Chriselle Braganza, Daniel Bernal, Edwin Reynolds, Fiona Callaghan, Juliet Rumball-Smith, Niki Stefanogiannis, Pippa Scott, Shayma Faircloth
Guests:	Kris Golding, Maria Cotter
Apologies:	Andi Shirtcliffe, Caroline McElnay, John Tait, Sean Hanna

1.0	**Welcome and previous minutes** Ian Town welcomed all Members and Attendees in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG). Minutes of the last meeting (14 September 2021) were accepted.
2.0	**Vaccine Rollout** The Chair provided an update on the vaccine rollout: • Increasing access to vaccination in suburbs affected by the current outbreak is a focus currently. • A range of initiatives are underway (e.g., mobile vaccine buses), with discussions about incentives and ways to reduce barriers. • Discussions are occurring with the Ministry of Education about administering vaccines to 12–15-year-olds and their families in education settings • Progress with vaccination is increasing steadily with the number of first doses administered expected to reach 80% in the next few days.
3.0	**Third Dose for Immunocompromised** The draft memo with recommendations for severely immunocompromised people to receive an additional dose of the Pfizer vaccine was shared with CV TAG. • CV TAG's recommendations align with advice given in the IMAC handbook for the severely immunocompromised. STA will keep a watching brief on the other conditions included in the IMAC handbook associated with non-severe immunocompromise, namely asplenics, diabetes and dialysis. These will be updated as further evidence emerges. • Medsafe and the Ministry of Health's legal team have reviewed the definition of who can administer the additional dose.

	• The Cancer Control Agency have been consulted and agreed that the CV TAG advice aligns with their advice regarding severe immunocompromise. • The dose will be framed as an 'additional dose' for clarity. • The advice will be signed out and shared with CVIP and IMAC.

4.0	**Vaccines Recognised for Arrivals**
	• A draft memo was presented to CV TAG with recommendations that from 1 November, everyone entering 14 days MIQ in New Zealand will need to be vaccinated. The memo specifies that:
	  ○ Arrivals should have had a full course with one of the 22 vaccines approved by regulatory authorities or governments around the world, at least 14 days prior to arrival.
	  ○ Those vaccinated with a non-WHO vaccine will require an additional dose of the Pfizer vaccine on leaving MIQ.
	  ○ An exemption process will be available for countries without access to vaccines for 12-15-year-olds, who will be offered Pfizer vaccination.
	  ○ Vaccine status will be self-reported with any form of proof accepted by the airline at check-in, and on arrival at customs.
	  ○ The purpose of introducing vaccine requirements for MIQ is not to stop transmission into the community, but rather about allowing equitable entry, and protection to the same extent as others in New Zealand.
	• Between 24 August and 17 September 2021, of the 2,438 MIQ guests during this period, 2,218 (91%) were fully vaccinated, and only 14 people (0.6%) were unvaccinated, and therefore it is expected to affect a small proportion of people.
	• Some concern was raised about the efficacy of Sinopharm and Sinovac.
	• Data was also requested on the positivity rate of tests at Day 3 and 10 in MIQ, and Day 6 when available. Shortened MIQs for vaccinated travellers will be discussed at a later date.
	• Additional doses should be administered as soon as possible once people arrive to New Zealand, with the advantage of time in MIQ being utilised. At the latest, they could be administered on leaving MIQ. Additional doses after leaving MIQ would result in inequities in uptake and access. It was noted that there were workload and operational concerns with administering doses while in MIQ.
	• The requirement of having to have been vaccinated at least 14 days prior to arriving to MIQ was considered to be unnecessarily restrictive.
	• The issue of whether healthcare workers vaccinated with Janssen should receive an extra dose of Pfizer was raised, due to the enhanced need for protection of a high-risk occupation. This will feed into broader work on vaccines, including vaccines to recognise for seasonal workers and those for new arrivals as part of the traveller-risk pathways. The evidence in this area is evolving and therefore STA and CV TAG will continue to monitor new information as it emerges and make updates as required.

5.0	**Third Booster Doses** • The recommendations made by the UK's Joint Committee on Vaccination and Immunisation to administer booster doses to all aged over 50 were brought to CV TAG for discussion. • It was flagged that evidence is accumulating on waning in the elderly. Those aged over 65 and/or vulnerable subgroups are likely to need a booster dose. However, it is still unclear when this should occur and in which subpopulations, and further evidence is required. • The STA team will begin a work programme to start building the evidence base for potential booster doses in the elderly, and this will be brought back to CV TAG.

6.0 **Decision to use for 12–15-year-olds**

- Considering the UK's decision to not vaccinate this age group, it was queried whether this decision should be revisited, and/or for only single doses to be administered.
- Aotearoa New Zealand's population is immunologically naïve and therefore it is still important that this population is vaccinated with two doses.
- However, greater emphasis is needed on the benefits provided by longer dosing intervals, with CV TAG expressing concern that intervals of 3 weeks were becoming more common in Auckland's outbreak.
- The opportunity for CV TAG position statements to be shared publicly was noted as something that could be explored in order to reinforce the current recommendation of 6 weeks.
- The new Pfizer results released showing a robust immune response in 5–11-year-olds given a 2 lower doses of the Pfizer vaccine were discussed. CV TAG will continue to follow the evidence as it emerges and raise any questions when meeting with Pfizer this week.
- No change to the current guidance.

7.0 **Next Steps/Decisions Pending**

None.

8.0 **Any Other Business**

Concern was raised with Dr Shane Reti incorrectly commenting on RNZ (21 September) that an interval of 1 week was being considered, with the vaccine not being approved by Medsafe for this interval. Engagement with his office is required.

9.0 **Agenda items for next meeting**

Vaccines recognised for MIQ entry

Vaccines recognised for Recognised Seasonal Employer (RSE) workers

10.0 **New Action Items Raised During Meeting**

57	Third dose for immunocompromised	Share finalised recommendations with IMAC	Secretariat
58	Vaccines recognised for arrivals	Share lists of vaccines approved with their efficacies to inform discussion	Science and Technical Advisory
59	Vaccines recognised for arrivals	Request data on positivity rates from MIQ testing requirements	Science and Technical Advisory
60	Third booster doses	Compile evidence on need for booster doses	Science and Technical Advisory

		61	Decision to use 12-15-year-olds	Reshare statement on the benefit of longer dosing intervals	Secretariat	
		62	Any other business	Discuss Pfizer dosing interval with Reti's office	Secretariat	
Meeting closed at **11:51am** Next meeting: **Tuesday 28 September – 11:00am to 12:00pm**						

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
49	Pfizer dosing error	Compile further evidence on the link between dosing intervals and reactogenicity.	Science and Technical Advisory	31/08 – Action raised
56	Third dose for immunocompromised	Finalise recommendations and share with CVIP	Science and Technical Advisory	14/09 – Action raised
57	Third dose for immunocompromised	Share finalised recommendations with IMAC	Secretariat	21/09 – Action raised
58	Vaccines recognised for arrivals	Share lists of vaccines approved with their efficacies to inform discussion	Science and Technical Advisory	21/09 – Action raised
59	Vaccines recognised for arrivals	Request data on positivity rates from MIQ testing requirements	Science and Technical Advisory	21/09 – Action raised
60	Third booster doses	Compile evidence on need for booster doses	Science and Technical Advisory	21/09 – Action raised
61	Decision to use 12-15-year-olds	Reshare statement on the benefit of longer dosing intervals	Secretariat	21/09 – Action raised
62	Any other business	Discuss Pfizer dosing interval with Reti's office	Secretariat	21/09 – Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
52	Vaccines Recognised for Returnees	Draft CV TAG recommendations and bring back to group	Science and Technical Advisory	07/09 – Action raised 21/09 - Action closed

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 05 October 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k) [redacted]
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Ian Frazer, James Ussher, Nikki Moreland, Peter McIntyre, Sean Hanna, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Andi Shirtcliffe, Brooke Hollingshead, Chriselle Braganza, Daniel Bernal, Edwin Reynolds, Erin Smith, Fiona Callaghan, Juliet Rumball-Smith, Pippa Scott
Guests:	Kris Golding, Mariana Traslosheros Reyes
Apologies:	Caroline McElnay, Helen Petousis-Harris, John Tait, Niki Stefanogiannis, Nikki Turner

1.0	**Welcome and previous minutes** Ian Town welcomed all Members and Attendees in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG). Minutes of the last meeting (21 September 2021) were accepted.
2.0	**Vaccine Rollout** The Chair provided an update on the vaccine rollout: • The vaccine rollout continues to gather momentum, and further work is underway to engage with at-risk communities through local providers and a focus on providing encouragement to those who are hesitant about getting the vaccine. • It has been agreed that the default booking rules change back to a three-week interval, due to the changing context of the Delta outbreak and the increased potential for circulating virus, there is an increased need to get second doses administered • The shift of resources to administering second doses was seen as anti-equity as it may divert focus from outreach to Māori and Pasifika who have not yet had first doses, however it was noted there is no shortage of vaccines or appointments to do both. • There was some discussion on whether a longer interval should be kept for adolescents and young people <30 due to wanting more data on the connection between intervals and side effects. • A shift back to three-week intervals would likely see an increase in people receiving their second dose before the minimum of 21 days, and therefore continued communication on the minimum interval between doses was needed.

3.0	**Vaccines recognised for MIQ entry and RSE workers** • Recommendations on the vaccination requirements for entering MIQ have been sent to CVIP. A person can enter MIQ if they have been fully vaccinated with the COVID-19 vaccines approved by at least one government or authority around the world. Those who have been vaccinated with a vaccine that is not approved by Medsafe or a Medsafe-approved authority will be offered an additional dose of the Pfizer vaccine. • Recommendations on the vaccine requirements for RSE workers arriving to New Zealand have been shared with Global Health and the Realm countries. While RSE workers were encouraged to be fully vaccinated before arriving, some will arrive having only had one dose. RSE workers who have had a full course of AstraZeneca are considered fully vaccinated. Those who have only had one dose of AZ, or who have been vaccinated with Sinopharm (one or two doses) will be offered an additional dose of Pfizer.
4.0	**Supporting evidence for Health Care Worker vaccination order** Evidence in support of the mandatory vaccination of healthcare workers was reviewed by CV TAG: • The evidence was largely focussed on experience the Delta VOC and the benefits of the Pfizer, vaccine, however other vaccines were also included in case healthcare workers may have been vaccinated in other countries with other vaccines. • A high level of individual protection against infection and disease is offered by the Pfizer vaccine. This was seen as of importance to protect healthcare workers but also to ensure workforce capacity remains steady. • Preliminary evidence of the impact of vaccination on transmission is promising although protection against transmission may wane. Further evidence on this will be reviewed, with a particular focus on the impact of furloughing healthcare workers due to their being contacts.
5.0	**VAANZ vaccine candidate development update and Research Project** An update was provided on the VAANZ vaccine candidates and research: • VAANZ now have two second generation COVID-19 vaccine candidates in the process of advancing to manufacturing: An adjuvant sub-unit protein booster vaccine targeted to the Delta variant, and a pan-coronavirus vaccine in development with Trans-Tasman partners, as part of an mRNA platform to protect broadly across coronaviruses • Phase 1 clinical trials for each of these candidates are expected to be running by early 2023. • Research is underway to assess immunogenicity of the COVID-19 vaccine in recipients aged over 16, and to assess differences in the immune response by ethnicity, age, and presence of comorbidities. The study is fully-enrolled (302 recruited) including 29% Māori and 30% Pacific Peoples. Data is expected in December 2021.
6.0	**BMI needle length study update** An update was also provided by the Ministry's Post-Events team on the BMI needle length study: • Recruitment is underway with about 100 participants currently recruited from the Mt Wellington vaccination centre. • However, the current lockdown restrictions in Auckland have provided challenges and further funding has been requested from the Ministry of Health. A budget reforecasting is underway, and the project will have a longer run time.

7.0	**Science Updates** This item was not discussed.
8.0	**Next Steps/Decisions Pending** None.
9.0	**Any Other Business** None.
10.0	**Agenda items for next meeting** Items that will be brought to CV TAG in the near future include: • Decision to Use for 5–11-year-olds and priority groups • Vaccine boosters for healthcare workers and the elderly • Decision to Use for AstraZeneca (due to potential delays of Janssen) • Further discussions of vaccine requirements at the border
11.0	**New Action Items Raised During Meeting**

#	Agenda item	Actions	Action Owner
63	Vaccines recognised for MIQ entry and RSE workers	Share finalised memos with CV TAG	Secretariat

Meeting closed at **12:03pm**

Next meeting: **Tuesday 19 October – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
49	Pfizer dosing error	Compile further evidence on the link between dosing intervals and reactogenicity.	Science and Technical Advisory	31/08 – Action raised
59	Vaccines recognised for arrivals	Request data on positivity rates from MIQ testing requirements	Science and Technical Advisory	21/09 – Action raised
60	Third booster doses	Compile evidence on need for booster doses	Science and Technical Advisory	21/09 – Action raised
63	Vaccines recognised for MIQ entry and RSE workers	Share finalised memos with CV TAG	Secretariat	5/10 – Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
52	Vaccines Recognised for Returnees	Draft CV TAG recommendations and bring back to group	Science and Technical Advisory	07/09 – Action raised 21/09 - Action closed
56	Third dose for immunocompromised	Finalise recommendations and share with CVIP	Science and Technical Advisory	14/09 – Action raised 21/09 – Action closed
57	Third dose for immunocompromised	Share finalised recommendations with IMAC	Secretariat	21/09 – Action raised 21/09 – Action closed
58	Vaccines recognised for arrivals	Share lists of vaccines approved with their efficacies to inform discussion	Science and Technical Advisory	21/09 – Action raised 21/09 – Action closed
61	Decision to use 12-15-year-olds	Reshare statement on the benefit of longer dosing intervals	Secretariat	21/09 – Action raised 21/09 – Action closed
62	Any other business	Discuss Pfizer dosing interval with Reti's office	Secretariat	21/09 – Action raised 21/09 – Action closed

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 19 October 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k) [redacted]
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Helen Petousis-Harris, James Ussher, Nikki Moreland, Peter McIntyre, Sean Hanna,
Ministry of Health Attendees:	Andi Shirtcliffe, Brooke Hollingshead, Chriselle Braganza, Edwin Reynolds, Erin Smith, Fiona Callaghan, Juliet Rumball-Smith, Pippa Scott
Guests:	Chris James, John Tait, Kris Golding, Susan Kenyon, Ralph Stewart
Apologies:	Caroline McElnay, Daniel Bernal, Ian Frazer, Niki Stefanogiannis, Nikki Turner, Sue Crengle, Tony Walls,

1.0	**Welcome and previous minutes** Ian Town welcomed all Members and Attendees in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG). Minutes of the last meeting (05 October 2021) were accepted.
2.0	**Vaccine Rollout and Outbreak** The Chair provided an update on the vaccine rollout: • 'Super Saturday' on October 16 provided a major boost to the vaccination rollout with approximately 130,000 doses administered, and many doses were among Māori and younger adults. All data broken down by DHB is publicly available on the Ministry of Health website.
3.0	**Supporting Evidence for Healthcare Worker Vaccination Order** • The evidence brief that CV TAG provided input into to support the mandatory vaccination of healthcare workers is being finalised. A brief evidence summary was included with the Cabinet paper, focussing on the effect of vaccination on transmission. • The specifics of any exemption policy were discussed. A small group of people may be medically exempt from the Pfizer vaccine, however, having an alternative vaccine available may also be of interest to other groups eg, healthcare workers. • The finalised evidence brief from CV TAG will be signed out as a memo and shared with CVIP.
4.0	**Decision to Use AstraZeneca** • The AstraZeneca vaccine may be considered for people who are unable to take the Pfizer vaccine due to contraindications, or due to issues with their first dose, as well as those hesitant about getting an mRNA vaccine.

	• The vaccine was considered suitable for anyone eligible and indicated as per the Medsafe data sheet, however it was noted that the data sheet had no age restrictions in its indication, nor prescribed dosing intervals. • AstraZeneca has been used with a range of dosing intervals (e.g., 4-12 weeks), though some countries have reduced this to four weeks in an outbreak. • The risk of thrombosis and thrombosis with thrombocytopaenia was noted as a concern, with incident rates higher among younger adults. AusVaxSafety provide comparative data by age for AstraZeneca and Pfizer and would be a useful resource. It was also noted that the vaccine has not been trialled or used among pregnant people. • Possible distribution channels for the different groups were queried. Distribution will likely be limited to certain centres to reduce the risk of error and due to larger volumes of the vaccine being needed to avoid waste. Those who had had an adverse event after their first dose could be referred through primarycare. People with a preference for a non-mRNA vaccine could be directed to certain vaccine centres with supplies or receive a booking code. • The STA team will draft recommendations for CV TAG to consider this week based on the Medsafe data sheet and data internationally. • The Ministry of Health's Policy team may seek advice on Janssen, Novavax or AstraZeneca at a later date.
5.0	**Myocarditis Update** • An update was provided from STA on the risk of myocarditis according to international evidence. Data presented at the latest US ACIP meeting on 30 August 2021 and data from Israel indicate that myocarditis reporting rates following mRNA COVID-19 vaccination continue to be rare overall, but highest risk tends to occur after the second dose, particularly in younger males. • Medsafe also shared the latest data on cases. The safety profile differs to the US in that New Zealand is seeing more cases after dose 1 than dose 2, however this could reflect the vaccine rollout with more young people being vaccinated later. Onset tends to be reported in the first five days for both dose. Data on dosing intervals has not been analysed, however it has been noted that cases have still occurred at an interval of 6-8 weeks. Overall, the rate is approximately 7 per million doses after dose 1, and 10 per million doses after dose 2. Peopled aged 30-39 are the most affected age group in New Zealand overall, and after dose 1, and people aged 20-29 are most affected after dose 2. Long-term follow-up data is expected by end of November. • ISMB shared that levels of reporting seem to correlate with the numbers of reports being received, looking at the number of hospitalisations in vaccinated individuals. Every case reported to CARM is reviewed by a medical assessor, and when there is insufficient data, further information is requested. If there is a risk of death, biopsies and post-mortems of myocardiums are requested. No long-term outcome data is currently available. • Information on symptoms to watch out for have been provided to all vaccinators, however it is possible that some centres are still using older booklets from before the advice was given. • Milder cases may benefit from further clinical investigation, and greater standardisation in management of care may be needed with ECGs and provision of troponins. Accessiblity of the guidance for general practice and primary care will be reviewed. • As previously noted, people who have myocarditis after their first dose should not be offered a second dose of an mRNA vaccine, and an alternative vaccine or no further doses should be considered for those people. • No further evidence had emerged that decreasing the dose interval had impacted myocarditis. • A clinical research project is one option to consider looking at myocarditis in greater detail.

6.0 Decision to Use 5–11-Year-Olds

- Medsafe are expecting an application from Pfizer in mid-November. The US FDA are reviewing data for 5-11-year-olds at the end of October.
- Little information has been provided on the paediatric formulation which Pfizer are currently trialling, however it may be of importance.
- STA will convene a subgroup of CV TAG to discuss priority groups and equity considerations for recommendations and a Decision to Use.
- Whether the 5–11-year-olds and 12–15-year-olds who are of lower weight may need a lower dose was discussed. Medsafe are reviewing whether any dose ranging studies were included in Pfizer's initial application.

7.0 Next Steps/Decisions Pending

None.

8.0 Any Other Business

Booster doses

- Medsafe are expecting an application from Pfizer for booster doses by the end of October.
- It was noted that there is significant demand for booster doses among healthcare workers, especially those in Auckland who perceive a safety issue having been vaccinated early on.
- The STA team are drafting recommendations on priority groups for CV TAG's consideration.
- A medium and longer strategic term lens looking to periods of greatest risk and demand in 2022 will be factored into the recommendations.
- Details of a third primary doses for immunocompromised people with a suboptimal immune response have been accepted by CVIP and will be announced.

9.0 Agenda items for next meeting

VAANZ Ka Mātau, Ka Ora study

- An extended protocol has been submitted to do additional immunology work, and a further funding request has been submitted, which will need to come through CV TAG.

10.0 New Action Items Raised During Meeting

#	Agenda item	Actions	Action Owner
64	Supporting Evidence for Healthcare Worker Vaccination Order	Finalise evidence brief and share with CVIP and CV TAG	Science and Technical Advisory
65	Decision to Use AstraZeneca	Draft recommendations for a Decision to Use memo shared with CV TAG	Science and Technical Advisory
66	Myocarditis	Discuss clinical guidance for primary care with CVIP	Science and Technical Advisory
67	Myocarditis	Convene subTAG to consider research	Science and Technical Advisory

68	Decision to Use 5–11-Year-Olds	Convene subgroup to compile evidence and discuss equity considerations	Science and Technical Advisory
69	Decision to Use 5–11-Year-Olds	Review Pfizer's application for 12-to-15-year-olds for evidence on dosages.	Medsafe
70	Booster doses	Draft recommendations shared with CV TAG	Science and Technical Advisory

Meeting closed at **12:11pm**

Next meeting: **Tuesday 02 November – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
49	Pfizer dosing error	Compile further evidence on the link between dosing intervals and reactogenicity.	Science and Technical Advisory	31/08 – Action raised
60	Booster doses	Compile evidence on need for booster doses	Science and Technical Advisory	21/09 – Action raised
64	Supporting Evidence for Healthcare Worker Vaccination Order	Finalise evidence brief and share with CVIP and CV TAG	Science and Technical Advisory	19/10 – Action raised
65	Decision to Use AstraZeneca	Draft recommendations for a Decision to Use memo shared with CV TAG	Science and Technical Advisory	19/10 – Action raised
66	Myocarditis	Convene subgroup to update clinical guidance for primary care	Science and Technical Advisory	19/10 – Action raised
67	Decision to Use 5–11-Year-Olds	Convene subgroup to compile evidence and discuss equity considerations	Science and Technical Advisory	19/10 – Action raised
68	Decision to Use 5–11-Year-Olds	Review Pfizer's application for 12-to-15-year olds for evidence on dosages.	Medsafe	19/10 – Action raised
69	Booster doses	Draft recommendations shared with CV TAG	Science and Technical Advisory	19/10 – Action raised

70	Booster doses	Draft recommendations shared with CV TAG	Science and Technical Advisory	19/10 – Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
59	Vaccines recognised for arrivals	Request data on positivity rates from MIQ testing requirements	Science and Technical Advisory	21/09 – Action raised 08/10 - Action closed
63	Vaccines recognised for MIQ entry and RSE workers	Share finalised memos with CV TAG	Secretariat	5/10 – Action raised 08/10 - Action closed

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 02 November 2021
Time:	11:00am to 12:00pm
Location:	Teams: 9(2)(k) [redacted]
Chair:	Ian Town
Members:	Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Brooke Hollingshead, Chriselle Braganza, Daniel Bernal, Edwin Reynolds, Erin Smith, Fiona Callaghan, Juliet Rumball-Smith, Pippa Scott
Guests:	John Tait, Kris Golding, Thomas Teunissen, Liam McConnell
Apologies:	David Murdoch, Sean Hanna, Andi Shirtcliffe, Caroline McElnay, Niki Stefanogiannis

1.0	**Welcome and previous minutes** Ian Town welcomed all Members and Attendees in his capacity as Chair of the COVID-19 Vaccine Technical Advisory Group (CV TAG). Minutes of the last meeting (19 October 2021) were accepted.
2.0	**Vaccine Rollout and Outbreak** • Vaccine uptake continues to increase. Vaccination rollout data and case details are available on the Ministry of Health website.
3.0	**Decision to Use AstraZeneca** • The finalised recommendations have been shared with the Director-General and CVIP, and the team is now working on acquiring doses of the AstraZeneca vaccine. As recommended by CV TAG, this vaccine will be targeted to those who are contraindicated to the Pfizer vaccine, or hesitant about receiving an mRNA vaccine. • Details of implementation will be brought back to CV TAG to outline delivery dates and how it will be operationalised. • Doses of the Janssen vaccine are still expected in early 2022.
4.0	**Medical exemptions** Draft recommendations on the clinical criteria for temporary medical exemptions to the vaccine were discussed. • The recommendations were drafted based on ATAGI advice, and are intended to be temporary exemptions lasting for a maximum of six months.

	• The recommendations limit medical exemptions to a narrow group of people including: people who have had anaphylaxis to the first dose, inflammatory cardiac illness, PCR-confirmed infection, a serious adverse event to prior dose, or for people who are unable to tolerate vaccination (e.g. people with severe neurodevelopment conditions). • Once alternative vaccine(s) are available, there will be changes to the exemptions, and it will be important to ensure that alternative vaccines are suitable e.g., the AstraZeneca 's TTS risk in younger age groups should be considered. • A temporary exemption should be included for people who experience myocarditis after the first dose. • A temporary exemption will be offered for people who are in clinical trials, e.g., the Valneva clinical trial. Reasons for this include not placing an undue burden on clinical trial participants and being unable to retrospectively impose conditions on trial participants that they have not agreed to. • Discussion occurred on who would have the ability to grant medical exemptions, and further guidance will be sought from IMAC and the Ministry's Clinical Quality and Safety team. • The draft memo will be revised and finalised.
5.0	**Booster doses** Draft recommendations on the clinical criteria for booster doses were discussed. • These were based on the JCVI and ATAGI advice and New Zealand's original prioritisation framework. • CV TAG requested that the criteria be simplified, and the prioritisation framework not be used, due to New Zealand being in a different context with circulating virus, ample vaccine supply and infrastructure to deliver booster doses. • Boosters for everyone over 30 were discussed with access to a booster dose at least 6 months after their primary course of vaccination, however there is insufficient data on the risk and safety for younger people at this stage. • Prioritisation for people at high risk of severe disease (e.g., Māori), and high risk of exposure (e.g., healthcare workers), followed by their whānau was discussed. • Age-criteria for prioritisations raise equity concerns particularly for Māori due to the increased risk of severe disease and hospitalisation, i.e., a lower age band for Māori should be considered to provide equivalent protection. • Concern was expressed that this would divert efforts and attention away from primary vaccination efforts, and therefore first and second doses should be prioritised over booster doses, and an overarching statement will be added to the recommendations to this effect. • The memo will be updated with the feedback from CV TAG and shared with CVIP once Medsafe approval occurs.
6.0	**'Fully-vaccinated' definition** • Draft recommendations on the criteria for 'fully-vaccinated' within the New Zealand border were shared, with this defined as being 7 days after a complete course of a COVID vaccine. • This would be used for vaccine certificates and in areas where vaccines are mandated within New Zealand's borders, and is not related to work on which vaccines would be recognised at New Zealand's border. • Which vaccines will be included under these guidelines (e.g., WHO recognised vaccines vs. vaccines recognised by a Medsafe Recognised Authority) was discussed, and which vaccines may benefit from an additional dose.

	• Heterologous schedules were seen as generally acceptable. • There was discussion about the risks of mandating vaccinations for people at elevated risk of adverse events e.g., younger people aged 12-17 and the increased risk of myocarditis after the second dose, and a single dose may be sufficient • There was also some discussion about whether younger people with a documented infection may only need one dose. • A finalised version of the memo will be distributed.
7.0	**Immunocompromised populations and ATAGI's update guidance** • CV TAG issued guidelines on which immunocompromised populations should be considered for a third primary dose in September. Since then, ATAGI have updated their guidance to include some broader groupings, and the Ministry received some feedback from rheumatology and haematology groups. • The timing for the third primary dose will also be updated to be from 4 weeks, rather than 8 weeks, as some flexibility is needed in relation to the timing of treatment. • Guidance will be updated to reflect this feedback.
8.1	**Research Studies: VAANZ further funding request** A proposal to extended funding for the Ka Mātau, Ka Ora Study was considered by CV TAG. • The Ka Mātau, Ka Ora Study is assessing immunogenicity of the Pfizer vaccine in New Zealand recipients >=16 years old and comparing immune responses by age, ethnicity and presence of co-morbidities. • The research was seen to be of great importance to understanding differences in immune responses for the Ministry of Health, with funding being drawn from the Ministry's Post-Event research funding pool. • The extension of funding was supported.
8.2	**Research Studies: Myocarditis research** A request to support research myocarditis following COVID-19 vaccination was also considered. • An ongoing long-term follow-up study was discussed regarding cases with a clinical diagnosis of myocarditis and/or pericarditis following vaccination, as reported to CARM. • CV TAG members were requested to volunteer to form a subgroup to develop plans and present a proposal for additional research questions to the Post-Event team.
8.3	**Research extension: Establishing a foundation for monitoring the safety of COVID-19 vaccines using primary care data** A request to endorse an extension of a research project from the University of Auckland (UoA) was received. • The extension will allow the project to establish background rates of adverse events of special interest (AESI) of COVID-19 vaccines from hospital discharge data and enable a foundation for monitoring the safety of COVID-19 vaccines using primary care data. • CV TAG noted that having baseline rates would be valuable to determine the safety profile of vaccines and endorsed the proposal.
9.0	**Medsafe provisional approval of the Pfizer vaccine extended**

	It was noted that Medsafe provisional approval has been extended for a further two years, until November 2023.
10.0	**Medsafe Safety Report 33** The latest Medsafe Safety Report was shared with CV TAG for noting and will be published publicly soon, with it giving a line of sight to reported adverse events.
11.0	**Next Steps/Decisions Pending** None.
12.0	**Any Other Business** Decision to Use for 5-11-year-olds • An initial discussion occurred on the Pfizer vaccine for 5–11-year-olds. • The recent clinical trial occurred among a relatively small sample of ~2000 children. Rare adverse events cannot be evaluated in a clinical trial of that size. New Zealand would be able to wait for the real-world data of the vaccine rollout internationally to evaluated safety and effectiveness. • The benefit:risk ratio was not as obvious for this group as for older populations, as COVID-19 presents as a mild disease in this age group and there appears to be an increased risk of myocarditis after vaccination in younger age groups. • Concern was also expressed on including 5–11-year-olds under vaccine certificates and mandates, with potential effects on education and wellbeing. • However, different risks for Māori and 5-11-year-olds vulnerable to severe COVID-19 or immunocompromise should be considered • A subgroup of CV TAG will be meeting to draft recommendations in the coming days.
13.0	**Agenda items for next meeting** Booster doses Decision to use for 5-11-year-olds
14.0	**New Action Items Raised During Meeting**

#	Agenda item	Actions	Action Owner
70	Medical exemptions	Revise memo with CV TAG's feedback and share with CVIP	Science and Technical Advisory
71	Booster doses	Revise memo with CV TAG's feedback	Science and Technical Advisory
72	'Fully vaccinated' definition	Revise memo with CV TAG's feedback	Science and Technical Advisory
73	Immunocompromised populations and ATAGI's update guidance	Revise memo with CV TAG's feedback and share with CVIP	Science and Technical Advisory

Meeting closed at **12:01pm**

Next meeting: **Tuesday 9 November – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
49	Pfizer dosing error	Compile further evidence on the link between dosing intervals and reactogenicity.	Science and Technical Advisory	31/08 – Action raised
64	Supporting Evidence for Healthcare Worker Vaccination Order	Finalise evidence brief and share with CVIP and CV TAG	Science and Technical Advisory	19/10 – Action raised
66	Myocarditis	Convene subgroup to update clinical guidance for primary care	Science and Technical Advisory	19/10 – Action raised
67	Decision to Use 5–11-Year-Olds	Convene subgroup to compile evidence and discuss equity considerations	Science and Technical Advisory	19/10 – Action raised
68	Decision to Use 5–11-Year-Olds	Review Pfizer's application for 12-to-15-year olds for evidence on dosages.	Medsafe	19/10 – Action raised
70	Medical exemptions	Revise memo with CV TAG's feedback and share with CVIP	Science and Technical Advisory	02/11 – Action raised
71	Booster doses	Revise memo with CV TAG's feedback	Science and Technical Advisory	02/11 – Action raised
72	'Fully vaccinated' definition	Revise memo with CV TAG's feedback	Science and Technical Advisory	02/11 – Action raised
73	Immunocompromised populations and ATAGI's update guidance	Revise memo with CV TAG's feedback and share with CVIP	Science and Technical Advisory	02/11 – Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
60	Booster doses	Compile evidence on need for booster doses	Science and Technical Advisory	21/09 – Action raised 01/11 – Action closed

65	Decision to Use AstraZeneca	Draft recommendations for a Decision to Use memo shared with CV TAG	Science and Technical Advisory	19/10 – Action raised 29/10 – Action closed
69	Booster doses	Draft recommendations shared with CV TAG	Science and Technical Advisory	19/10 – Action raised 01/11 – Action closed