MINISTRY OF HEALTH
MANATŪ HAUORA

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 13 April 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope
Chair:	Ian Town
Members:	David Murdoch, Edwin Reynolds, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Pippa Scott, Sean Hanna
Ministry of Health Attendees:	Caroline McElnay, Daniel Bernal, Juliet Rumball-Smith, Fiona Callaghan, Chriselle Braganza
Guests:	Janelle Duncan, Sarah Emerson
Apologies:	Andi Shirtcliffe, John Taylor, Matire Harwood, Shayma Faircloth, Sue Crengle, Tony Walls, Kath Blair, Allison Bennett, Kris Golding

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 (23 March 2021) were accepted. The Chair noted that the CV TAG membership and minutes will be released as part of an OIA request.
2.0	**Science Updates** CV TAG members were asked to note any errors or concerns about these documents to the Secretariat. An amendment to the wording in section 3.9 of the Pfizer Science Overview document was proposed: change “blood clotting issue” to “thrombocytopenia” to avoid any confusion. The Ministry is maintaining a line of sight on any unusual events with respect to the Pfizer vaccine. The DG has asked for daily updates about Pfizer, including any concerning matters in the adverse events reported following vaccination and in the literature.
3.0	**Research in Children** The document will continue to be updated regularly. It will be relevant for briefing Minsters on the likely time that children aged 12-15 years can be considered for vaccination. Medsafe has contacted Pfizer for data submissions on this topic.
4.0	**Vaccine Rollout** There has been a call for public reporting about the vaccine rollout and the Ministry has developed a one-page summary on the current progress. The document focusses on the rollout thus far, but a forward-looking plan will be available shortly, once DHBs have lodged their rollout plans. The scaling

	of small to large confidence-building events is imminent and the national public relations campaign will start on Monday 19 April. A summary of the rollout was provided to CV TAG members. The Ministry is working with DHBs to address gaps in the private sector, for example, those who would not normally expect be covered through a DHB arrangement but need to be vaccinated at the same time as others. Some issues were raised during this discussion: • There was a concern that adverse event reporting was disconnected especially between the CIR and the CARM processes. • There have been previous discussions around active approaches to monitoring, such as sending out an SMS text to people after they have received the vaccine to gain feedback on any issues. To date this technology has not been implemented in NZ. Australia has offered to share their cloud-based technology with NZ, and it would be good to implement this system before scaling up our rollout. This would allow for more trust in the reporting system instead of relying on the passive system that is currently in place. The Chair suggested that these issues be escalated directly with the Director of the COVID-19 Immunisation Programme.
5.0	**Overlap Influenza Campaign** The Minister has made a clear decision against pausing the influenza programme, but this comes down to the sequencing and timing, which will vary across the country. For example, the COVID-19 vaccine is being rolled out in Counties Manukau and thus will be administered first, followed by influenza. However, in other parts of the country, people would have time to receive the influenza vaccine first, followed by the COVID-19 vaccine. Discussion included: • Work is being undertaken around establishing clear communication with primary care colleagues and a flexib e framework is being developed to aid with decision making. • The priority is to administer the COVID-19 vaccine without delay, which means that the influenza vaccine programme may need to be delayed • The Ministry has provided sequencing advice to primary care. Feedback from Counties Manukau DHB identified the need for more flexibility. The messaging has been softened to reflect that the COVID-19 vaccine appointment is a priority, however, if the person does not have an appointment for the COVID-19 vaccine, they can get a flu vaccine. The influenza programme is also developing a tool for flu vaccine providers that contains a poster with a flowchart providing clear instructions on which vaccine should be administered in which order.
6.0	**CV ISMB Memo Update** The post-event pillar team provided an update on the COVID-19 Vaccine Independent Safety Monitoring Board (CV ISMB) meetings. During the last ISMB meeting on 31 March, Medsafe provided detailed safety information on the vaccine rollout. This included an overview of the serious and non-serious events. The Board has reviewed diagnostic criteria for anaphylaxis events. The ISMB also noted concern around how the second dose will be administered for people who experienced serious side effects after the first dose, and how this information will be communicated. The ISMB meeting also raised the following questions: • Consideration of vaccinating high-risk children: The Chair noted that the CV TAG have provided advice against vaccinating children as there is not enough data currently available to support use in children.

	• Modelling studies on whether there is a need for a booster dose: The Chair noted that this item will be added as an item for further work. Discussion included: • The monitoring through CARM and Medsafe is different from needing clinical feedback when an issue occurs. A clinical framework is required and will be developed by the Ministry. • The adverse events post event are dealt with in primary care. There is a need for a conversation between IMAC, the Ministry, and Healthline to support the escalation of unusual events to clinical advisors and a potential need for setting up a virtual clinic for those that need follow up. • If someone experiences a severe reaction that requires closer observation, when receiving their second dose, they should be referred to the larger, well-established DHBs that have the required clinical oversight. • The requirements for additional care haven't been articulated for people who experience serious events or have other complications. It has been suggested that operational clinical leads around the country nominate a clinical lead to participate in a working group. It would be good to have support from the sector to lead discussions on where patients go, what equipment workforce is required for good care, and what this would look like for all proposed models. This discussion will start on Thursday 15 April and it is anticipated that this will be sector lead and Ministry facilitated. • Every DHB has a responsibility to ensure that the programme is safely delivered, including seeking senior health professionals' advice on who should get vaccinated.
7.0	**48h Testing Advice** CV TAG recommendations have been implemented into the testing advice, which will go out in the next 24 hours.
8.0	**Interchangeability of COVID-19 Vaccines** Key points of discussion: • Given that ATAGI has recommended the COVID-19 Pfizer vaccine is preferred over the AstraZeneca vaccine for adults aged under 50 years, it is unclear what should be done with people who have had one dose of the AstraZeneca vaccine and are now not eligible for it. People in Australia might refuse to take the second AstraZeneca dose but some of these are frontline workers, so a ruling is required. • The status of vaccination will need to be recorded appropriately on the CIR to avoid people being recalled for an additional dose of Pfizer. This will be noted on the memo going out to the CVIP. CV TAG members recommended that where a single dose of another two-dose regimen vaccine is documented, a single dose of the Pfizer vaccine should be given at least 4 weeks after the first vaccine dose. Post-meeting note: ATAGI has recommended people who have had the first dose of the AstraZeneca vaccine without any serious adverse effects can be given the second dose, including adults under 50 years.
9.0	**Janssen Decision to Use** The Chair noted that the Decision to Use for Janssen will follow a careful approach to allow for policy and science advice to consider which populations may be more suited to receive this vaccine CV TAG noted that:

	• Janssen has been marketed as a one dose vaccine, however they are running a two-dose trial, so more data is required to understand whether it is in fact a one dose vaccine. • Although the exact mechanism for the recently described blood clotting disorders is not yet known, it could be related to the adenovirus vector, and this may pose some challenges. There may be some merit in considering the Moderna vaccine for inclusion into our portfolio, as this would add another mRNA vaccine that could be used as an alternative. The Chair noted that there has been significant difficulty in liaising with Moderna, but this can be looked into again.
10.0	**AZ and Risk of Blood Clots** Australia is having issues with their vaccine rollout following the decision to review the use of the AZ vaccine.
11.0	**Next Steps/Decisions Pending** None noted
12.0	**Any Other Business** Janssen and AstraZeneca would like to present science briefings to the CV TAG. These will not be compulsory. Options for suitable times will be sent to CV TAG members for consideration.
13.0	**Agenda items for next meeting** Janssen Decision to Use Modelling studies on booster doses of a different vaccine Baseline Survey of Adverse Events - Update
	New Action Items Raised During Meeting

#	Agenda item	Action	Action Owner
22	Vaccine Rollout	Escalate the issues related to the CIR system with Joanne Gibbs (Director of CVIP)	Juliet Rumball-Smith Nikki Turner
23	CV ISMB Memo Update	Meet with CV ISMB to establish a clear line of communication and escalation	Chair
24	Interchangeability of COVID-19 Vaccines	Notify the CVIP that vaccine doses of arrivals should be appropriately recorded on the CIR	Juliet Rumball-Smith
25	Janssen Decision to Use	Enquire about acquiring the Moderna vaccine	STA Team

Meeting closed at **12:00pm**

Next meeting: **Tuesday 20 April – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Action	Action Owner	Updates
19	Vaccine Guidance to Cancer Clinicians	Talk to the Immunisation team regarding removal of cautionary advice on ICIs for the flu vaccine	Caroline McElnay	09/03 - Action raised
22	Vaccine Rollout	Escalate the issues related to the CIR system with Joanne Gibbs (Director of CVIP)	Juliet Rumball-Smith Nikki Turner	13/04 - Action raised
23	CV ISMB Memo Update	Meet with CV ISMB to establish a clear line of communication and escalation	Chair	13/04 - Action raised
24	Interchangeability of COVID-19 Vaccines	Notify the CVIP that vaccine doses of arrivals should be appropriately recorded on the CIR	Juliet Rumball-Smith	13/04 - Action raised
25	Janssen Decision to Use	Enquire about acquiring the Moderna vaccine	STA Team	13/04 - Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
08	Vaccines for Children	Work towards a proactive position statement on vaccinating children	Peter McIntyre Tony Walls Elizabeth Wilson	19/02 - Action raised 02/03 - Tony Walls provided an overview of the recommendations, final document will be circulated for consideration. 09/03 - Tony will circulate the documentation when ready. 23/03 - Document circulated.
18	Vaccine Rollout	Contact Medsafe about progress of Janssen approval	STA Team	09/03 - Action raised 23/03 - Update added to these minutes
20	Any Other Business	Contact Medsafe about stability of Pfizer vaccine	STA Team	09/03 - Action raised 23/03 - Update added to these minutes

21	Health Advice on Symptoms 48 hours Post Vaccination – Discrepancy for Border Workers	Draft a proposed guidance document and email to CV TAG for review	Juliet Rumball-Smith James Harris	23/03 - Action raised 13/04 - Draft guidance provided to CV TAG and will be implemented in the next 24 hours.

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 27 April 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
Chair:	Ian Town
Members:	David Murdoch, Edwin Reynolds, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, Nikki Moreland, Nikki Turner, Peter McIntyre, Pippa Scott, Sue Crengle
Ministry of Health Attendees:	Andi Shirtcliffe, Daniel Bernal, Juliet Rumball-Smith, Fiona Callaghan, Chriselle Braganza, Shayma Faircloth
Guests:	
Apologies:	Caroline McElnay, James Ussher, John Taylor, Matire Harwood, Sean Hanna, Tony Walls

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 (13 April 2021) were accepted.
2.0	**Science Updates** CV TAG was requested to send any updated information for inclusion into the documents. It was noted that data on vaccination of immunocompromised individuals is beginning to emerge. The updated Cancer Control Agency guidance includes material on the vaccination of immunocompromised individuals taking in to account the timing of vaccination with respect to treatment, the COVID-19 risk, and the ability of immunocompromised individuals to produce an immune response. This updated guidance will be shared with CV TAG.
3.0	**Research in Children** Pfizer has been invited to submit data on children to Medsafe to inform a decision by the Medicines Assessment Advisory Committee.
4.0	**Vaccine Rollout** The daily vaccine report was presented to CV TAG. There are approximately 400,000 doses in storage, but these will be utilised quickly once the rollout is ramped up in June/July. A supply of stored doses is required so that the vaccine can be deployed rapidly in the event of an outbreak. Key points: • All DHBs have been asked for their individual rollout plans as different approaches are being taken according to locations and their population.

	• The rollout is somewhat short of meeting the daily medium-term target of 5,000 doses per day but there has been good progress towards people receiving their second dose. • A request was received for administrative and IT purposes to define a maximum allowable time interval between doses. The suggestion based on current evidence and recommendations from ATAGI and the US CDC is for six weeks. It is recommended that the second dose be given as close to the three-week time as possible. The Ministry will work with the CIR team to ensure that this administrative upper limit on the interval between doses isn't interpreted as a clinical recommendation.
5.0	**Baseline Survey of Adverse Events** The study will pause their work on anaphylaxis and focus on some of the original priorities, including thrombotic issues. Chart reviews will be conducted to evaluate the accuracy of the data with respect to capturing adverse events. The protocols of the study will be published after the advisory group have provided feedback. Key points: • Data for thrombotic events was collected for Medsafe, however this was not broken down by sub-population. Work is ongoing regarding case definition. This work is being undertaken in collaboration with a haematologist. • Funding from the Global Vaccine Data Network (GVDN) will allow for collaboration and evaluation of baseline rates. At this stage, it is not known whether the methodology for estimating the rates are harmonised across studies. • CV TAG noted that in most countries the benefits of vaccination far outweigh the risk of rare side effects.
6.0	**Serological Survey Protocol** A brief overview was provided on the seroprevalence study by the University of Auckland. The study evaluated blood samples collected by the NZ blood service between December 2020 and January 2021. As the study was based on a convenience sample, there are issues of bias, however, there was good geographical spread and a broad age range (16-88 years). Immunoassays were carried out to evaluate the level of COVID-19 antibodies. 18 positive samples were detected, of which six were matched to previously confirmed cases. The studies were carried out blinded and showed that the serological testing algorithms worked well. The study found eight previously undiagnosed cases and a low seroprevalence of ~ 0.1%, suggesting a very low amount of undetected community transmission. Key points: • It was highlighted that the more vulnerable Māori and Pacific populations were underrepresented in this study. This was recognised as a limitation of the study. • It has been shown that anti-spike IgG antibodies last for several months after infection. • The upcoming VAANZ study that has previously been discussed with the CV TAG will be specifically recruiting Māori and Pacific populations to address the gap in immunogenicity data for these populations. • CV TAG noted that at this stage there is no need for further seroprevalence studies in NZ, given the low rate of infection and that it is highly unlikely that a large number of infections were undetected.
7.0	**Next Steps/Decisions Pending** None noted
8.0	**Any Other Business**

	Janssen and Pfizer would like to present science briefings to the CV TAG. Attendance is optional for the CV TAG. Options for suitable times will be sent to CV TAG members for consideration.
9.0	**Agenda items for next meeting** Adverse event reporting - Janelle Duncan and Chair
	New Action Items Raised During Meeting

#	Agenda item	Action	Action Owner
26	Science Updates	Circulate updated guidance from Cancer Control Agency to CV TAG	Chair
27	Vaccine Rollout	Follow up with the CIR team to ensure that the administrative timing is not mistaken as a clinical recommendation	Juliet-Rumball Smith

Meeting closed at **11:47am**

Next meeting: **Tuesday 04 May – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Action	Action Owner	Updates
22	Vaccine Rollout	Escalate the issues related to the CIR system with Joanne Gibbs (Director of CVIP)	Juliet Rumball-Smith Nikki Turner	13/04 - Action raised 27/04 - Chair noted that these issues are being worked through. A report is being prepared and will be sent to CV TAG shortly.
23	CV ISMB Memo Update	Meet with CV ISMB to establish a clear line of communication and escalation	Chair	13/04 - Action raised 27/04 - Chair noted that there are still some articulation issues between the CV ISMB, the CV TAG, and the steering group, which are being worked on.
26	Science Updates	Circulate updated guidance from Cancer Control Agency to CV TAG	Chair	27/04 - Action raised
27	Vaccine Rollout	Follow up with the CIR team to ensure that the administrative timing is not mistaken as a clinical recommendation	Juliet-Rumball Smith	27/04 - Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
19	Vaccine Guidance to Cancer Clinicians	Talk to the Immunisation team regarding removal of cautionary advice on ICIs for the flu vaccine	Caroline McElnay	09/03 - Action raised 27/04 - Chair noted that the cautionary advice will be removed from the next version of the manual and the information sheets.
24	Interchangeability of COVID-19 Vaccines	Notify the CVIP that vaccine doses of arrivals should be appropriately recorded on the CIR	Juliet Rumball-Smith	13/04 - Action raised 27/04 - Juliet noted that temporary workaround has been put in place with a more permanent solution to come.
25	Janssen Decision to Use	Enquire about acquiring the Moderna vaccine	STA Team	13/04 - Action raised 27/04 There are no current plans to acquire the Moderna vaccine.

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 11 May 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
Chair:	Ian Town
Members:	David Murdoch, Edwin Reynolds, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Pippa Scott, Sean Hanna, Tony Walls
Ministry of Health Attendees:	Caroline McElnay, Daniel Bernal, Juliet Rumball-Smith, Chriselle Braganza, Shayma Faircloth; Christian Marchello
Guests:	Janelle Duncan; Niki Stefanogiannis
Apologies:	Andi Shirtcliffe, Fiona Callaghan, John Taylor, Matire Harwood, Tim Hanlon, Sue Crengle

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 April 2021) were accepted subject to the following correction being made to Item 6.0 Serological Survey Protocol (added text in red): 18 positive samples were detected, of which six were matched to previously confirmed cases. The studies were carried out blinded and showed that the serological testing algorithms worked well. There were 4 seropositive samples with notable 2020 travel to high-risk areas suggesting infection outside NZ. The study found an additional eight previously undiagnosed cases and a low seroprevalence of ~ 0.1%, suggesting a very low amount of undetected community transmission.
2.0	**Science Updates** The Chair summarised key points from the briefing that was held with Janssen the previous evening. Janssen provided an overview of the Phase 1, 2, and 3 studies, followed by a detailed breakdown of adverse events, including thrombotic thrombocytopenic disorders. Janssen noted that their decision to market the vaccine as a single dose was deliberate and strategic given the positive Phase 1 results but studies using a second dose are underway. The vaccine also shows promising results against variants of concern. Future studies in adolescents, children, and pregnant persons were also outlined. The Ministry's policy team will be looking at potential use of the Janssen vaccine in NZ in the following weeks, as the vaccine is under consideration by Medsafe. If approval is granted, a discussion will be held with CV TAG around the use of the Janssen vaccine, similar to the process following approval of the Pfizer vaccine. Updates on the Pfizer vaccine were highlighted:

	• The emergency use authorisation has been extended by the FDA to include use in ages 12-15 years. • Phase 1 studies on a prototype vaccine targeting variants of concern will be commencing soon. • More data is emerging around the effectiveness of a single dose and generally suggest that two doses are more effective than one. • Data is emerging around the vaccine's effect on transmission, with studies in household settings showing that the vaccine reduced onwards transmission. • Revised manufacturing target to 3 billion doses produced by end of 2021. • Data is emerging for pregnant persons, with no safety signals detected in this population yet but only a small number have been vaccinated. AstraZeneca has begun preclinical studies for a prototype vaccine targeting variants. Due to the blood clotting issues, trials in children have been suspended temporarily until this can be investigated further. Novavax has released results showing that the vaccine has around 50% efficacy against the B.1.351 (South African) variant. They are currently developing a prototype vaccine targeting this variant. Novavax have also extended their Phase 3 trial to include children aged 12-17 years.
3.0	**Research in Children** Canada and US have extended Pfizer's emergency use approval to include ages 12-15. Pfizer are also seeking extension of the EMA approval. Pfizer will be submitting data to Medsafe shortly for extension of the approval to 12-15 years. The Medicines Assessment Advisory Committee (MAAC) meeting in June will consider this information and the CVIP are looking at timing of administration via high school events, which may land in Q3 and Q4. This will have to be managed carefully as the timing may coincide with other events such as the examination period.
4.0	**Vaccine Rollout** The daily vaccine report was presented to CV TAG. Approximately 373,000 doses have been administered, of which 114,000 were second doses. The first mass vaccination event is being planned for deployment in late June, with an event company hired to organise this event. The Ministry has been working with primary care colleagues and has recommended that a site must be able to administer around 30 doses per day to be established as a primary care vaccination centre. This will allow approximately 30% of primary care teams to begin vaccinating when supply is available for the wider rollout. Other colleagues will be encouraged to refer their patients to the nearest site.
5.0	**Update on Adverse Event Reporting (CIR system)** Post-event workstream provided an overview of the work that is being undertaken as part of the adverse events reporting process. An updated paper was provided to CV TAG that covered the reporting of adverse events following immunisation (AEFI), an uplift to the Centre for Adverse Reactions Monitoring (CARM) system, and the development of a clinical protocol for the management of consumers who experience an adverse event following the first dose. Key points: • The level of work is unprecedented; usually CARM receives about 5,000 reports a year but have already received around 2,600 reports since the beginning of the COVID-19 vaccine rollout.

	• Reports submitted to CARM are triaged according to seriousness and are escalated for medical assessment. This includes serious adverse events, adverse events of special interest (AESI), and those that may be part of a suspected signal. • The post-event workstream prepares a daily report on reported adverse events and a weekly update with any signals that are being investigated. • Four signals are currently being investigated: thrombosis with thrombocytopenia syndrome (TTS), appendicitis, herpes zoster, and myocarditis. • Medsafe reports on adverse events weekly but there is currently a lag time of a month to allow for identification of any causality. The reports are published every Wednesday on the Medsafe website to align with other communications. • The COVID-CARM application was released on 30th March, which took CARM from being paper-based to digitised. While this hasn't changed from a consumer's perspective, background processes have changed significantly and allow the whole process to be digital. It was highlighted that this application was implemented as an interim solution while a new and more suitable database is being explored. • A clinical protocol in being developed for administering the second dose to people who experienced an adverse event following the first dose. An initial meeting was held with DHBs, Immunisation Advisory Centre (IMAC), and HealthPathways to discuss this. A follow up meeting is occurring tomorrow to progress the draft protocol further. • It was noted that the implementation of an active monitoring has been approved in principle by the steering group, with further work on the proposal underway. CV TAG noted that the need for an active SMS based monitoring system has been highlighted as an important aspect of the New Zealand surveillance system in previous meetings (formerly the COVID-19 Vaccine Strategy Science and Technical Advisory group to MBIE) and that this system should have been implemented months ago. The active monitoring system is key to building community confidence in the vaccine, to increase uptake, and to undertake risk assessments. There was strong support from the CV TAG for the active SMS based reporting system to be implemented immediately.
6.0	**Ring Vaccination** An overview was provided on the paper that was prepared by policy and public health teams within the Ministry. The paper outlines previous discussions with CV TAG, which concluded that the COVID-19 vaccine should not be used for post-exposure prophylaxis but can be used for ring vaccination. For implementation purposes, further advice and clarification is required around the definition and purpose of ring vaccination during a COVID-19 outbreak. Key points of discussion: 1. CV TAG accepted the definition of ring vaccination as described in the paper. However, the preference is to move away from using the term 'ring vaccination' and instead use 'targeted vaccination'. It was noted there are 'details within the details' that are more difficult to define, i.e., defining the 'rings' or persons to be targeted. 2. Targeted vaccination should be implemented alongside other public health measures and not as a standalone measure. A protocol should be developed and ready for implementation if we have an outbreak. The use of targeted vaccination can reduce harm and increase community confidence and vaccine uptake. 3. A question was raised as to what the trigger point would be for deploying targeted vaccination. There is no international data on using the COVID-19 vaccine for targeted vaccination to inform this decision. The situation in New Zealand means that there may be an opportunity to get some data. It is difficult to differentiate between post-exposure

	prophylaxis and targeted vaccination because some close contacts will likely end up being included in the target group. 4. It was noted that NZ is already taking a targeted approach by starting vaccinations with border workers in the sequencing framework. It has been communicated with DHBs that targeted vaccination is in our 'toolbox', but the Ministry has not been able to provide specifics on how this would be implemented. 5. There will be communities with low vaccine coverage, and we will need a protocol to ensure increased coverage while maintaining equity in an outbreak setting. The wider border opening may lead to potential outbreaks in some communities. 6. Targeted vaccination has a place as part of our suite of public health interventions during an outbreak where there will be an increased demand for vaccination. The Ministry will work on general supply chains, staffing, and logistics. A judgement call will have to be made by senior officials within the Ministry as to when targeted vaccination is required. This work will be led by the public health team. CV TAG endorsed the approach of targeted vaccination and the development of a protocol as part of the contingency plan.
7.0	**Next Steps/Decisions Pending** None
8.0	**Any Other Business** • **Vaccine rollout in Australia**: The vaccine programme is progressing smoothly, with approximately 10% of the population vaccinated with at least one dose. The vaccine is being rolled out at immunisation centres, as well as general practices, and there are no vaccine shortages. • **Timing of flu vaccine**: A discussion was had about whether the Ministry can endorse that it is acceptable to have a four week gap between the two doses of the Pfizer vaccine, following questions received via the IMAC 0800 line on timing of the flu vaccine. It was noted that changing the Ministry's view on the interval between doses would have significant implications for the booking system, the CIR, and distribution and volume planning. The current public messaging is that doses should be spaced at least 21 days apart. Any further endorsement or permissive statements may lead to confusion, especially since the advice has been to prioritise the COVID-19 vaccine.
9.0	**Agenda items for next meeting** None noted
	New Action Items Raised During Meeting None
Meeting closed at **12:01pm** Next meeting: **Tuesday 18 May – 11:00am to 12:00pm**	

Open Actions:

None

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
22	Vaccine Rollout	Escalate the issues related to the CIR system with Joanne Gibbs (Director of CVIP)	Juliet Rumball-Smith Nikki Turner	13/04 - Action raised 27/04 - Chair noted that these issues are being worked through. A report is being prepared and will be sent to CV TAG shortly. 11/05 - Post-event workstream provided an update during this meeting.
23	CV ISMB Memo Update	Meet with CV ISMB to establish a clear line of communication and escalation	Chair	13/04 - Action raised 27/04 - Chair noted that there are still some articulation issues between the CV ISMB, the CV TAG, and the steering group, which are being worked on. 11/05 - Chair of the CV ISMB will be attending the vaccine steering group today to present the process of investigating adverse events.
26	Science Updates	Circulate updated guidance from Cancer Control Agency to CV TAG	Chair	27/04 - Action raised 11/05 - Document circulated to CV TAG.
27	Vaccine Rollout	Follow up with the CIR team to ensure that the administrative timing is not mistaken as a clinical recommendation	Juliet-Rumball Smith	27/04 - Action raised 11/05 - This item has been followed up with the implementation team.

MINISTRY OF HEALTH
MANATŪ HAUORA

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 25 May 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Helen Petousis-Harris, James Ussher, John Taylor, Nikki Moreland, Nikki Turner, Peter McIntyre, Pippa Scott, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Caroline McElnay, Daniel Bernal, Edwin Reynolds, Fiona Callaghan, Juliet Rumball-Smith, Chriselle Braganza, Shayma Faircloth
Guests:	Ali Mirjalili, Tom Hills, Kris Golding, Allison Bennett, Tim Hanlon
Apologies:	Andi Shirtcliffe, Ian Frazer, Matire Harwood, 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 (11 May 2021) were accepted. The Chair noted that key messages from CV TAG meetings are provided as a verbal update to the Vaccine Steering Group and are also reported to Ministers.
2.0	**Science Updates** Updates on the Pfizer vaccine were highlighted: • The US FDA has authorised storage of the undiluted vaccine at fridge temperatures for up to a month. • The vaccine received full regulatory approval in Switzerland, Japan, and Brazil. • The vaccine has been approved for use in ages 12-15 in the US, Singapore, and the UAE. • Preliminary data on extended dose intervals showed that a 12-week interval was associated with increased antibody titres but decreased T cell responses, compared to a 3-week interval. However, it is not clear what role each of these responses play in long term protection. • Preliminary evidence on mixed vaccine schedules with Pfizer and AstraZeneca showed that heterologous vaccine schedules were more reactogenic than homologous schedules. • Data from Public Health England indicated that the Pfizer and AstraZeneca vaccines were effective against the B.1.1.7 (UK) and B.1.617.2 (Indian) variants.

	• The CEO of Pfizer has stated that there may be a need for booster doses, however, no data have been released on antibody waning. It is also not clear whether "booster" refers to a third shot of the original vaccine or a second-generation vaccine targeting variants of concern. • Events of myocarditis post-vaccination are being evaluated by regulators, including the EMA and FDA. Preliminary evidence suggests that rates are low in the US, UK and the EU (~1 per million) and Israel (~6 per million). Key points of discussion: • CV TAG noted that the Pfizer storage temperature is an important issue as we move into the wider rollout and an expedited approval process for changing the storage conditions may be beneficial. • The WHO Strategic Advisory Group of Experts (SAGE) are evaluating whethe there is a differential degree of risk of thrombotic thrombocytopenia syndrome for Janssen versus AstraZeneca, however, no recommendations have been made. Given the increased risk of thrombosis in pregnancy, some counties have specifically recommended against administering adenoviral-vector vaccines to pregnant persons. • The Janssen vaccine is being studied in 400 pregnant women CV TAG members were asked to send any new research, updates, or changes to the Secretariat.
3.0	**Research in Children** Key points: • Medsafe are considering an extension of the Pfizer provisional approval to include ages 12-15.
4.0	**Vaccine Rollout** The daily vaccine report was presented to CV TAG. Over half a million doses have been administered, with the delivery of vaccines to nearly 200 different sites around NZ progressing smoothly as the rollout continues. It was highlighted that it would be beneficial to report the proportion of eligible Māori population that have been vaccinated. The Chair noted this is a critical part of the equity reporting framework and this matter has been relayed to DHBs. Issues with the 2018 census are making this difficult to map.
5.0	**Research P oject on BMI and Immunogenicity** Researchers from Auckland provided an overview of the proposed study to evaluate the effect of BMI and arm size on intramuscular vaccine delivery and immunogenicity. The study will investigate vaccine delivery into the deltoid muscle by using ultrasound to measure the distance from the skin to the muscle. Patient finger prick blood samples will then be analysed for immunogenicity. This will help to understand the appropriate needle length required for different BMIs. Key points of discussion: • Vaccinators generally decide on which needle length to use by 'eyeballing' patient size. There is little data currently available on which part constitutes the deltoid muscle in people with higher BMIs. There has also been some trouble with accessing longer needles that may be needed for people with extremely high BMIs. This is a concerning issue, particularly for Pacific populations, who may have different arm morphology. • Two options were presented for sampling in the study: finger-prick sampling, which is quick and easy, and can be analysed using spike immunogenicity assays; or venous blood

	sampling, which can allow for more in-depth analysis but is not very practical. CV TAG recommended the finger-prick option. • It was highlighted that it would be useful to compare the proposed method with the approach that is currently used in order to evaluate the method. • It was strongly suggested that researchers ensure that they recruit a sufficient number of participants from Māori, Pacific and other race/ethnicity populations. • It was highlighted that the vaccine rollout is about to expand to Group 3, which includes those with BMI >40. This will have relevance towards determining whether the targets of the study are achievable in the proposed timeframe. • It was noted that data on skin thickness is relatively easily to collect via ultrasound and this may be shared sooner, however, serology results will take longer. CV TAG approved the general approach of the study and requested that the research be shared as it becomes available. CV TAG members were requested to submit any further suggestions about the protocol to the Secretariat for provision to researchers of the study.
6.0	**Pfizer Decision to use Tier 3** The policy team sought advice from CV TAG regarding any updates for the Decision to Use the Pfizer COVID-19 vaccine, as Aotearoa-New Zealand moves to vaccinating Tier 3. This is to ensure that due process is being followed and assess whether there is any additional information that needs to be considered before proceeding with the wider rollout. Key points: • Updated information from the global rollout is being tracked regularly in the science update documents, and there has not been any evidence to indicate a concern about using Pfizer for the wider rollout. • To date, the safety data from Aotearoa-New Zealand are consistent with the known safety profile, including in ethnic populations and those with co-morbidities. • The COVID-19 Vaccine Independent Safety Monitoring Board (CV ISMB) has been reviewing adverse events following immunisation and is satisfied with the safety profile of Pfizer. There are some safety signals being evaluated but there is a high degree of confidence that these events are consistent with the global rollout. • Regarding the reduction in reporting rates for adverse events, it was highlighted that this is normal because rates generally reduce as vaccinators become more experienced and confident. The message to the sector is to continue to report anything unexpected and concerning. CV TAG agreed that the safety and effectiveness data, to date, regarding the Pfizer COVID-19 vaccine are consistent with previous evidence, with no concerns being raised about using this vaccine for the wider rollout to group three. CV TAG recommended that no changes are required to the Decision to Use Pfizer.
7.0	**Pregnancy Advice** Prior to the meeting, CV TAG were provided with a literature review on COVID-19 vaccines and pregnancy and a proposed revised recommendation prepared by IMAC... It was highlighted that pregnancy is an immune-compromised state, with pregnant persons at higher risk of severe outcomes from COVID-19 infection. There have been no toxicity issues identified with the COVID-19 vaccine in preclinical studies and there are no first-principle reasons to exclude pregnant persons from being offered the COVID-19 vaccine. Moreover, emerging real-world data are showing that the

	Pfizer vaccine in safe in pregnant persons. Based on this, CV TAG were requested to revise the current recommendation for COVID-19 vaccines in pregnancy to reflect the latest data. Key points: • The messaging around pregnancy needs to be clear as the vaccine rollout moves into tier 3, which may include pregnant women. • Data on the safety of the COVID-19 vaccine in pregnant persons have been reported and international bodies have recommended the COVID-19 vaccine during pregnancy. • Without a clear recommendation, it may be difficult to pivot advice rapidly, in the event of an outbreak, to allow pregnant persons to be vaccinated. CV TAG agreed that the current recommendation needs to be revised to provide more clarity. It was noted that this will be followed up with an engagement process with various stakeholders. CV TAG members were requested to send any further comments regarding the revised recommendation over the next few days. The final revised recommendation will be put forward to the COVID Immunisation programme for implementation.
8.0	**Long-term effects of Pfizer vaccine** This item was not discussed due to time constraints.
7.0	**Next Steps/Decisions Pending** None
9.0	**Any Other Business** **Update on active monitoring:** The steering group has provided approval in principle to proceed with the implementation of an active monitoring system. The process is currently in the technical assessment phase. The Post Event team are expecting a way forward shortly.
10.0	**Agenda items for next meeting** Long-term effects of Pfizer vaccine
11.0	**New Action Items Raised During Meeting** None
Meeting closed at **12:00pm** Next meeting: **Tuesday 08 June – 11:00am to 12:00pm**	

Open Actions:

None

Closed Actions Since Last Meeting:

None

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 08 June 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
Chair:	Ian Town
Members:	David Murdoch, Edwin Reynolds, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Moreland, Nikki Turner, Pippa Scott, Sean Hanna
Ministry of Health Attendees:	Andi Shirtcliffe, Caroline McElnay, Daniel Bernal, Fiona Callaghan, Chriselle Braganza, Shayma Faircloth
Guests:	Kris Golding, Tim Hanlon
Apologies:	Allison Bennett, Juliet Rumball-Smith Matire Harwood, Peter McIntyre, Sue Crengle, Tony Walls

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 (25 May 2021) were accepted.
2.0	**Science Updates** Updates on the COVID-19 vaccines were highlighted: • Pfizer published the Phase 3 trial data from 12-15 year-olds. • Israel Health Ministry has concluded that the cases of myocarditis, predominantly in younger males, following the Pfizer vaccine are probably linked to the vaccine. The US and EU regulators have stated that a causal link is yet to be established. • The rate of thrombosis with thrombocytopenia Syndrome is approximately 1 case in 100,000 for the AstraZeneca vaccine and 1 case in 300,000 for the Janssen vaccine. • Preliminary data from the UK reported that the Novavax vaccine has an overall efficacy of 89.7% which is higher than the previously reported efficacy of 60% from South African trials where the B.1.351 variant was prevalent. • Preliminary data suggests that an 8-week interval between two doses of the mixed schedule of AstraZeneca and Pfizer vaccines leads to high immunogenicity. It was noted that the AstraZeneca science overview document will be provided to CV TAG shortly. CV TAG members were asked to send any new research, updates, or changes to the Secretariat.
3.0	**Research in Children** Key points:

	• Pfizer published the Phase 3 trial data from 12-15 year-olds. In general, safety and efficacy results from the 1,131 children enrolled were consistent with the Phase 3 trial in adults.
4.0	**Vaccine Rollout** The daily vaccine report was presented to CV TAG. The rollout is proceeding at pace, with approximately 750,000 doses administered.
5.0	**Research Prioritisation Framework** Post-event workstream presented the proposed prioritisation framework for research on surveillance questions of importance to NZ. Key points: • Medsafe is interested in any safety concerns and will not contribute to research support but will provide guidance and technical expertise as required. • A research workshop will be run held to further these discussions. Key points of discussion: • CV TAG generally supported the prioritisation framework and recommended that equity considerations be weaved into all criteria in the framework
6.0	**Decision to Use Pfizer for 12 -15 years** The policy team sought advice from CV TAG regarding the Decision to Use the Pfizer COVID-19 vaccine for 12-15 year-olds. Medsafe are expected to make a decision on regulatory approval this week, with advice going to Cabinet thereafter. CV TAG discussed the results from the Phase 3 trials in children aged 12-15 years for the Pfizer vaccine Key points of discussion: • Myocarditis should be watched closely as a potential safety signal. Any benefits of administering the vaccine to children should be evaluated against the risks. If the aim is to reduce the spread of infection, then 12-15 year-olds are not a high priority at this stage, except those that are vulnerable and at high risk. • Children with severe neurodisabilities in institutional care are a vulnerable population in countries with high prevalence of the disease. This group has been listed as a priority population in the UK. • There should be a clear reason to vaccinate children at a population level. The potential role of transmission in schools will have to be evaluated against the potential risks of vaccination in children. The Science and Technical team are setting up a sub-TAG on testing in children to understand whether there is a requirement to test more in children and this information will feed into the discussion on the decision to use. • There is some very early informal discussion in Australia on vaccinating children as they may have played a role in transmission of the virus during the current Victoria outbreak. • Some countries have recommended deferring vaccination of children until there is more equitable coverage globally in the elderly, healthcare workers, and the general adult population that are at higher risk from COVID-19 than children. CV TAG will provide recommendations in the form of a memo to inform the decision to use the Pfizer vaccine for 12-15 year-olds, including an evaluation of the risks and the benefits. CV TAG noted that they would also like to review any conditions recommended by Medsafe, prior to finalising their recommendations.

7.0	**Upcoming decisions on Janssen and AZ** The policy team noted that Medsafe decisions on the AstraZeneca and Janssen vaccines are expected shortly and CV TAG will be consulted for advice on decision to use both of these vaccines.
8.0	**Next Steps/Decisions Pending** None
9.0	**Any Other Business** **Update on use of COVID-19 vaccines in pregnancy:** The Ministry has been working with RANZCOG to update the recommendations for pregnancy. The recommendations from RANZCOG are consistent with that of the Ministry, IMAC, and Australian authorities, and state that the Pfizer vaccine can be administered at any stage during pregnancy. **Concerns over Pfizer vaccine rollout:** CV TAG members are drafting a response to address concerns that were raised in a letter to Medsafe from a general practitioners' group, regarding the Pfizer COVID-19 vaccine safety and efficacy.
10.0	**Agenda items for next meeting** Update on VAANZ study
11.0	**New Action Items Raised During Meeting** None
Meeting closed at **11:36am** Next meeting: **Tuesday 15 June – 11:00am to 12:00pm**	

Open Actions:

None

Closed Actions Since Last Meeting:

None

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 22 June 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope
Chair:	Ian Town
Members:	David Murdoch, Edwin Reynolds, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Pippa Scott, Sean Hanna, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Andi Shirtcliffe, Caroline McElnay, Daniel Bernal, Fiona Callaghan, Juliet Rumball-Smith, Chriselle Braganza, Shayma Faircloth, Niki Stefanogiannis, Brooke Hollingshead
Guests:	Kris Golding, Allison Bennett, Tia Narvaez
Apologies:	

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 (08 June 2021) were accepted.
2.0	**Science Updates** CV TAG members were asked to send any new research, updates, or changes to the Secretariat.
3.0	**Research in Children** This item was discussed later as part of Item 6.
4.0	**Vaccine Rollout** The daily vaccine report was presented to CV TAG. Nearly a million doses have been administered around New Zealand. The focus is now on equity distribution for Māori and Pacific populations as internal data shows underperformance in some regions. The Ministry will work with DHBs to facilitate higher uptake. Key points: • CV TAG suggested that it would be good for the reporting be done in column percent to allow for the denominator to represent each ethnic population. This would identify any inequity more accurately. It was noted that the Ministry is working on achieving more accurate reporting and this matter will be followed up.

	• CV TAG suggested that a literature review of social drivers may be useful to understand the requirements for higher coverage in younger people (aged 16 and above). It was noted that the Ministry's Behavioural Insights team are looking into these studies.
5.0	**Decision to Use Janssen** The Policy team sought advice from CV TAG regarding the decision to use the Janssen COVID-19 vaccine. Key points of discussion: • CV TAG discussed a potential precaution for younger age groups, given the safety signal observed in the US for thrombosis with thrombocytopenia syndrome (TTS). There is lack of clarity on whether the frequency of TTS with the Janssen vaccine is similar to that with AstraZeneca. • It is still unclear whether this is a true one-dose vaccine. Janssen is conducting trials testing two doses of the vaccine and this data will shed light on whether a second boost dose is required for better protection. • This vaccine might be less effective against circulating variants of concern. However, it depends what the objectives of vaccination are. For example, viral vectored vaccines seem effective at reducing hospitalisation and death but if the aim is to reduce viral infection, then vectored vaccines seem inferior, particularly after one dose • Only a small supply of Janssen may be required in New Zealand as a potential alternative to the Pfizer vaccine for some individuals. • The option to donate the majority of the Janssen vaccine to countries in need should be considered, when it becomes available Overall, CV TAG felt that there is little gain in using the Janssen vaccine, given that it has lower efficacy than the Pfizer vaccine and noting the safety signals. It will be challenging to communicate the benefits versus the risk of this vaccine in New Zealand, where we have little community transmission. CV TAG were asked to send any additional comments to the Chair and Secretariat for incorporation into the recommendations.
6.0	**Decision to Use Pfizer for 12 -15 years** Medsafe has provisionally approved the Pfizer COVID-19 vaccine for 12-15 year-olds. The Policy team sought advice from CV TAG regarding the decision to use the Pfizer vaccine in this age group. Key points of discussion: • Children in this age group are at low risk for poor outcomes if they contract COVID-19. However, achieving target coverage will require immunisation of younger age groups. We will need geographic as well as demographic, e.g., ethnicity, coverage. • No safety signals have been observed in this specific age group but there are limited data available to date. • It would be advisable to delay until more safety data is available, especially with regards to potential safety signals such as myocarditis, which have been reported in some overseas rollouts eg, Israel • No subgroups were identified for prioritisation (with the exception of a small number of children undergoing cancer treatment or under specialist care) or for precautions, at this stage. • New Zealand is in a low prevalence COVID-19 environment and other groups in the Sequencing Framework are a higher priority because of the risk of severe health outcomes.

<table>
<tr><td></td><td>
Consideration should be given to equity and whānau-based approaches and ensuring that other childhood immunisation programmes are not compromised, e.g., measles and HPV vaccination.
Overall, CV TAG felt that there are other groups with higher priority than children at this stage. CV TAG discussed the option to delay the recommendations for decision to use until more safety data becomes available.
</td></tr>
<tr><td>7.0</td><td>
Mixed Vaccine for the Border Order
Public Health Policy team sought advice from CV TAG regarding which overseas vaccines, other than Pfizer, are acceptable in New Zealand for incoming border workers.
CV TAG noted that:

The Moderna mRNA vaccine is acceptable given its similar efficacy to the Pfizer vaccine.
Antibody testing may be useful for monitoring immune responses of incoming workers and this can also be used to validate vaccine certificates.
Documented vaccination with a vaccine from countries with a similar regulatory environment should be accepted.

CV TAG recommended compiling a list of vaccines considered acceptable for border workers. The list will be comprised of vaccines approved by regulators in countries with similar regulatory systems, such as the US, EU, and Australia. All border workers will have to be fully vaccinated according to the recommendations for each vaccine.
</td></tr>
<tr><td>8.0</td><td>
Next Steps/Decisions Pending
None
</td></tr>
<tr><td>9.0</td><td>
Any Other Business
Maximum dosing interval between Pfizer vaccine doses: COVID Immunisation Programme (CVIP) noted that it would be clinically and operationally helpful to suggest a maximum duration between the two doses of Pfizer. An upper limit is required so that the second dose isn't extended out too far.
CV TAG noted that:

The second dose is required for robust protection but given the lack of data, there is no scientific or clinical basis on which to recommend a specific maximum interval between doses.
On clinical grounds, a preference for 8-12 weeks was noted as has been adopted in some countries.

</td></tr>
<tr><td>10.0</td><td>
Agenda items for next meeting
Update on timelines for vaccinating younger populations
</td></tr>
<tr><td>11.0</td><td>
New Action Items Raised During Meeting
<table>
<tr><th>#</th><th>Agenda item</th><th>Action</th><th>Action Owner</th></tr>
<tr><td>28</td><td>Vaccine rollout</td><td>Follow up with CVIP data team on ethnic reporting</td><td>Secretariat</td></tr>
</table>
</td></tr>
<tr><td colspan="2">
Meeting closed at 12:00pm
Next meeting: Tuesday 29 June – 11:00am to 12:00pm
</td></tr>
</table>

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
28	Vaccine rollout	Follow up with CVIP data team on ethnic reporting	Secretariat	22/06 - Action raised

Closed Actions Since Last Meeting:

None

MINISTRY OF HEALTH
MANATŪ HAUORA

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 29 June 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope
Chair:	Ian Town
Members:	Andi Shirtcliffe, David Murdoch, Edwin Reynolds, Elizabeth Wilson, Helen Petousis-Harris, Ian Frazer, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Pippa Scott, Sean Hanna, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Daniel Bernal, Fiona Callaghan, Juliet Rumball-Smith, Chriselle Braganza, Shayma Faircloth, Niki Stefanogiannis; Brooke Hollingshead
Guests:	Tim Hanlon; Jared Green, Kris Golding
Apologies:	Caroline McElnay

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 (22 June 2021) were accepted subject to the following correction being made to Item 7.0. • Antibody testing may be useful for monitoring immune responses of incoming workers and this can also be used to validate vaccine certificates, however it is not recommended at this stage.
2.0	**Myocarditis after Pfizer Vaccination** • Advice on the Decision to Use Pfizer for 12-15-year-olds was issued to Cabinet, however a decision has been deferred pending advice from CV TAG on myocarditis. • The FDA have added a warning for myocarditis and pericarditis to the Pfizer and Moderna vaccine data sheets, after observing a series of cases following vaccination. It is seen most predominantly in adolescent and young adults, particularly males aged <30 years, and after the second dose. CV TAG discussed the current evidence and risks. Key points of discussion: • The University of Auckland is leading a project estimating background rates of adverse events in New Zealand, including myocarditis, and is expected to report findings within the next 7-10 days. Data on the ethnic breakdown of cases was requested to be included. • CV TAG noted concern about the potential risk of myocarditis has grown and a sense of urgency to develop options, e.g., for alternative vaccine schedules, and advice.

	• While evidence is still emerging, IMAC clinicians are already fielding requests on myocarditis. It was noted that because the issue is relatively rare, the true risk may not be known for some time until the vaccine rollout internationally has progressed further.
	• There is a need to communicate safety information to inform the public and present a balanced assessment of the risk and benefits. Science communicators who can appeal to a range of different ethnicities will be important.
	• Further information is needed on vaccine hesitancy among young adults and men <30 and how this may be impacted by a potential safety signal, to inform how the commentary would be managed.
	• Possible options raised by CV TAG included:
	  ○ Considering using only a single dose among people who are at higher risk (e.g. young males <30, people with a history of myocarditis) until further evidence is available. It was noted that Israel is actively considering this option
	  ○ Heterologous vaccine schedules (e.g., offering Janssen or another vaccine – when available - as a second dose).
	  ○ Considering the ongoing use of Pfizer in young males <30 until further evidence emerges. It was noted that many within this population would have been captured under groups 1-3. Data on the numbers in each of these groups, as well as when they are expected to be vaccinated, is needed from CVIP.
	It was agreed that a subgroup would be convened to draft advice which will be presented to the CV TAG next week (06 July) to inform recommendations around using the Pfizer vaccine in younger people.

3.0	**COVID-19 Vaccination in the Frail Elderly**
	• CV TAG were informed that there have been two recent incidences of frail elderly individuals passing away shortly following administration of the Pfizer vaccination. Each was showing serious progressive decline prior to vaccination, and there was a concern from the family and general practitioner that the vaccination may have played a role in their death.
	• The Ministry of Health and Medsafe have received requests for advice on this issue, and therefore it was considered important to develop guidance to be proactive, ensure consistency, and to support and empower health professionals to make decisions.
	• CV TAG reviewed the science advice, ethics document and draft recommendations on administering the COVID-19 vaccine in the frail elderly.
	• Draft recommendations for consideration by CV TAG are summarised below:
	  ○ The COVID-19 Vaccine Immunisation Programme (CVIP) recommends that all eligible adults, including the frail and elderly with several comorbidities are offered vaccination against COVID-19 provided that there are no contra-indications to vaccine administration, to provide protection for both the individual as well as their surrounding community. This is consistent with advice provided by ATAGI/DHHS (Australia).
	  ○ CVIP endorses individual clinical risk/benefit appraisal and shared decision making between clients, whānau, surrogate decision makers, and clinicians on the individual.
	Key points of discussion:
	• It was noted that this is not a problem specific to the COVID-19 vaccine; evaluating the benefits and risks of therapies and interventions in the frail elderly is a common occurrence.

	CV TAG recommended adding additional guidance to provide this context for clarity in point 2 above. • The definition of shortened life expectancy and terminal decline was queried. It was noted that prognosticating life span was difficult to assess, and therefore this would rely on clinician's judgment in conversation with the patient and their family. • It was noted that the frail may not always be elderly, and therefore it may apply to younger people with comorbidities. Frailty may also affect younger age bands differentially in Māori and Pacific communities. • It was also noted that Australia has made vaccination of the Aged Residential Care workforce compulsory, which could be considered in New Zealand as a protective barrier for this population. The proposed recommendations for COVID-19 vaccination in the frail elderly will be amended, finalised, socialised with the relevant professional bodies and distributed accordingly
8.0	**Next Steps/Decisions Pending** None
9.0	**Any Other Business** None
10.0	**Agenda items for next meeting** Myocarditis after Pfizer Vaccination
11.0	**New Action Items Raised During Meeting**

#	Agenda item	Actions	Action Owner
29	Myocarditis after Pfizer Vaccination	Draft message for Ministry of Health Comms on the risks of myocarditis.	Secretariat
30	Myocarditis after Pfizer Vaccination	Convene a subgroup of CV TAG to advise on the risk of myocarditis.	Secretariat
31	Myocarditis after Pfizer Vaccination	Request data from CVIP on numbers <30 in each group.	Secretariat
32	Myocarditis after Pfizer Vaccination	Request behavioural insights information on vaccine hesitancy among <30	Secretariat

Meeting closed at **11:52am**

Next meeting: **Tuesday 06 July – 11:00am to 12:00pm**

Open Actions:

#	Agenda item	Actions	Action Owner	Updates
29	Myocarditis after Pfizer Vaccination	Draft message for Ministry of Health Comms on the risks of myocarditis.	Secretariat	29/06 - Action raised

30	Myocarditis after Pfizer Vaccination	Convene a subgroup of CV TAG to advise on the risk of myocarditis.	Secretariat	29/06 - Action raised
31	Myocarditis after Pfizer Vaccination	Request data from CVIP on numbers <30 in each group.	Secretariat	29/06 – Action raised
32	Myocarditis after Pfizer Vaccination	Request behavioural insights information on vaccine hesitancy among <30	Secretariat	29/06 – Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
28	Vaccine rollout	Follow up with CVIP data team on ethnic reporting	Secretariat	22/06 - Action raised 30/06 - Email update provided to Sue Crengle

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 06 July 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Helen Petousis-Harris, James Ussher, Nikki Moreland, Peter McIntyre, Pippa Scott, Tony Walls
Ministry of Health Attendees:	Caroline McElnay, Edwin Reynolds, Fiona Callaghan, Juliet Rumball-Smith, Chriselle Braganza, Shayma Faircloth, Niki Stefanogiannis,
Guests:	Janelle Duncan
Apologies:	Andi Shirtcliffe, Daniel Bernal, Ian Frazer, Nikki Turner, Sue Crengle, 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 (29 June 2021) were accepted subject to the following correction being made to Item 2.0 (in red): • There is a need to communicate safety information to inform the public and present a balanced assessment of the risk and benefits. Science communicators who can appeal to a range of different ethnicities, genders, and ages will be important.
2.0	**Science Updates** Key points: • Evidence is emerging to indicate that a heterologous regimen consisting of AstraZeneca as the first dose and Pfizer as the second dose induces robust immune responses. • Preliminary data are available with regards to immune correlates of protection, however, more data are required to make reliable inferences about efficacy. • Preliminary data are available for a third dose of AstraZeneca, and third doses in those who are immunocompromised.
3.0	**Research in Children** This item was discussed as part of Item 6.0
4.0	**Vaccine Rollout** A batch of 150,000 doses of Pfizer arrived ahead of schedule this week, with the next delivery expected next week. Further batches are expected to arrive late July, as the immunisation

	programme to scales up. Nearly 500,000 people have been administered two doses of the vaccine to date.
5.0	**Janssen – Decision to use** The Janssen COVID-19 vaccine has been granted provisional approval by Medsafe. No precautions were added, but a warning regarding potential risk of thrombosis and thrombocytopenia has been included. CV TAG's recommendations for the decision to use the Janssen vaccine will be provided to the immunisation programme.
6.0	**Myocarditis after Pfizer Vaccination** CV TAG discussed advice provided by the STA and a subgroup of CV TAG, on the current evidence on events of myocarditis/pericarditis post vaccination, and related questions. Key points: • Previous studies of US military personnel, that evaluated the risk of myocarditis following the smallpox vaccine, indicated that myocarditis was a potential safety issue, with cases usually occurring within a few days of vaccination. • Events of myocarditis tend to be associated with the second dose of mRNA COVID-19 vaccines, although some cases occur after the first dose. The rate of myocarditis tends to be higher in males and younger age groups, particularly in males aged 16-30. • There is limited information, to date, on the long-term outcomes and severity of myocarditis following vaccination. Of the 29 cases in the Vaccine Safety Datalink (VSD) reported in the US, 24 (83%) were hospitalised with a median stay of 1 day (range 0-13 days), including two who were admitted to the ICU. All cases were discharged, and nearly all cases had resolution of symptoms at follow up. • Overall, emerging evidence suggests that myocarditis is a largely self-limiting and rare event following mRNA vaccination, with the rate for Pfizer in the US being approximately 0.8 per 100,000 in 12-39 year-olds within 21 days following the second dose. • CV TAG discussed possibility of alternative vaccination schedules that might mitigate the risk in younger age groups. However, any change in dosing schedule will require Medsafe approval. • CV TAG discussed potential recommendations, including advice for those with rheumatic heart disease, those with a previous history of myocarditis, or those who develop myocarditis following the first dose. A subgroup of the CVTAG will meet 08 July to draft recommendations. The recommendations will be finalised by the end of week and discussed at the next CV TAG full meeting.
7.0	**VAANZ Research Update** An update was provided on the VAANZ study evaluating immunogenicity of the Pfizer vaccine in the Aotearoa New Zealand population, with equity as a key priority. The study has enrolled around 113 individuals (of the total 300) to date. Approximately 30% are Māori and 40% are Pacific Peoples.
8.0	**Next Steps/Decisions Pending** None
9.0	**Any Other Business** • **Advice for vaccination in the frail elderly**: Recommendations have been finalised and shared with the relevant peak bodies.

	• **BMI and vaccination project:** An update was provided that the project has been signed off, and the team has partnered with an Auckland-based centre to begin recruitment.
10.0	**Agenda items for next meeting** None
11.0	**New Action Items Raised During Meeting** None
Meeting closed at **11:43am** Next meeting: **Tuesday 13 July – 11:00am to 12:00pm**	

Open Actions:

None

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
28	Vaccine rollout	Follow up with CVIP data team on ethnic reporting	Secretariat	22/06 - Action raised 30/06 - Email update provided to Sue Crengle
29	Myocarditis after Pfizer Vaccination	Draft message for Ministry of Health Comms on the risks of myocarditis.	Secretariat	29/06 - Action raised 30/06 - Message signed off and sent to Comms
30	Myocarditis after Pfizer Vaccination	Convene a subgroup of CV TAG to advise on the risk of myocarditis	Secretariat	29/06 - Action raised 30/06 - Subgroup convened and provided advice
31	Myocarditis after Pfizer Vaccination	Request data from CVIP on numbers <30 in each group.	Secretariat	29/06 – Action raised 01/07 - Data received and incorporated into request for advice on myocarditis
32	Myocarditis after Pfizer Vaccination	Request behavioural insights information on vaccine hesitancy among <30	Secretariat	29/06 – Action raised 01/07 - Data received and incorporated into request for advice on myocarditis

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 13 July 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Helen Petousis-Harris, James Ussher, Nikki Moreland, Peter McIntyre, Pippa Scott, Sue Crengle,
Ministry of Health Attendees:	Andi Shirtcliffe, Daniel Bernal, Edwin Reynolds, Fiona Callaghan, Juliet Rumball-Smith, Chriselle Braganza, Shayma Faircloth, Brooke Hollingshead
Guests:	Bryan Mitchelson
Apologies:	Nikki Turner, Niki Stefanogiannis, Tony Walls, Sean Hanna, Ian Frazer, Caroline McElnay

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 (06 July 2021) were accepted.
2.0	**Vaccine Rollout** The vaccine rollout continues to scale up. The focus will progressively move to the general population (Group 4), and there will be a corresponding shift in communications to focus on getting everyone vaccinated. The national booking system will go live soon.
3.0	**Children Priority Groups** This item was not discussed and will be carried over to next week.
4.0	**Myocarditis Recommendations** • Draft recommendations on the risk of myocarditis after mRNA vaccination were presented to CV TAG. • It was noted that, this is a developing issue, and there are still several uncertainties in the data. • Based on preliminary US data, the risk of myocarditis after Pfizer vaccination is approximately 1 in 25,000 for males 12-29 years, and 1 in 240,000 for females 12-29 years. For individuals 30 and over, the corresponding risks decrease to approximately 1 in 400,000 for males, and 1 in a million for females. While the risk for females is lower than for males, it is still greater for younger people, and therefore any recommendation should be applied to all people aged under 30.

	• The New Zealand context of having no community transmission is important to consider, as the risk of COVID-19 is currently low and this effects the benefit:risk assessment.
	• CV TAG noted that cardiac-related events after vaccination are being reported to CARM, and the Independent Safety Monitoring Board (ISMB) is reviewing reported cases.
	• Emerging evidence suggests one dose of the vaccine appears to be highly immunogenic, and provides greater protection in younger compared to older age groups, and therefore may provide sufficient protection in the interim, until further evidence emerges on second dose options.
	• CV TAG progressed to summarise an initial draft of the approach:
	  ○ The second dose of Pfizer vaccination could be deferred in individuals aged 29 years and under until further information is available about the risk, long-term outcomes of myocarditis and/or pericarditis, and protection offered by one dose for this age group.
	  ○ People 29 years of age and younger who require regular clinical review by a cardiologist are advised to discuss the risks and benefits of the first dose of COVID-19 vaccine for their specific situation with their healthcare team
	  ○ People aged 30 years and over should still receive two doses of the vaccine, 21 days apart as the risk of myocarditis and/or pericarditis post vaccination is less than 1 in 400,000 and risks of severe disease and sequelae due to COVID-19, including myocarditis, are substantially higher in this age group compared to people aged 29 years and under.
	  ○ Anyone who develops confirmed myocarditis and/or pericarditis after the first dose should not receive a second dose of the Pfizer COVID-19 vaccine. CV TAG will consider alternative options for a second dose of COVID-19 vaccination in this group at a future date as evidence emerges from overseas safety monitoring.
	  ○ CV TAG will continue to monitor all relevant effectiveness and safety data closely and advise on the need and options for the second dose for individuals aged 29 years and under at a future date. Options for the second dose may include: 1) proceeding with the second dose of the Pfizer COVID-19 vaccine after a longer interval between doses; 2) not administering a second dose; 3) administering a second dose of an alternative COVID-19 vaccine.
	• A memo with these recommendations is being prepared and will be shared with CV TAG for feedback. Public-facing communications will be drafted for CVIP Communications. Options will need to remain agile as further evidence emerges.
	• Cardiac related events associated with alternative vaccine schedules will be explored by the Science and Technical Advisory team, as will the use of other options.
	• Given that vaccinating the whānau together is a key approach for delivering the vaccine to Māori, further discussion will be needed on the equity implications of these recommendations.
	• The Director-General will need to be consulted about the options and the CVIP team will need to consider the implications for the programme.

5.0	**Next Steps/Decisions Pending** None.
6.0	**Any Other Business** None.
7.0	**Agenda items for next meeting** Children Priority Groups.

8.0	**New Action Items Raised During Meeting**

#	Agenda item	Actions	Action Owner
33	Myocarditis after Pfizer Vaccination	Update message for Ministry of Health Comms on the risks of myocarditis.	Secretariat
34	Myocarditis after Pfizer Vaccination	Compile information on cardiac-related events associated with other vaccines in New Zealand's portfolio.	Secretariat

Meeting closed at **11:36am**

Next meeting: **Tuesday 20 July – 11:00am to 12:00pm**

Open Actions:

#	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
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

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
29	Myocarditis after Pfizer Vaccination	Dra t message for Ministry of Health Comms on the risks of myocarditis.	Secretariat	29/06 - Action raised 30/06 - Message signed off and sent to Comms
30	Myocarditis after Pfizer Vaccination	Convene a subgroup of CV TAG to advise on the risk of myocarditis.	Secretariat	29/06 - Action raised 30/06 - Subgroup convened and provided advice
31	Myocarditis after Pfizer Vaccination	Request data from CVIP on numbers <30 in each group.	Secretariat	29/06 – Action raised 01/07 - Data received and incorporated into request for advice on myocarditis
32	Myocarditis after Pfizer Vaccination	Request behavioural insights information on vaccine hesitancy among <30	Secretariat	29/06 – Action raised

				01/07 - Data received and incorporated into request for advice on myocarditis

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 20 July 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
Chair:	Ian Town
Members:	David Murdoch, Elizabeth Wilson, Ian Frazer, Nikki Turner, Peter McIntyre, Pippa Scott, Sean Hanna, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Caroline McElnay, Daniel Bernal, Edwin Reynolds, Fiona Callaghan, Brooke Hollingshead
Guests:	Bryan Mitchelson, Janelle Duncan
Apologies:	Andi Shirtcliffe, James Ussher, Shayma Faircloth, Helen Petousis-Harris, Nikki Moreland, Juliet Rumball-Smith, Niki Stefanogiannis, Chris James, Derek Fitzgerald, Susan Kenyon

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 (13 July 2021) were accepted.
2.0	**Science Updates** Updates on the COVID-19 vaccines were highlighted: • The US Food and Drug Administration and European Medicines Agency have added warnings to the vaccine data sheets for Janssen and AstraZeneca on Guillain-Barré syndrome. • Evidence on single dose effectiveness was added to the science updates. • It was noted that Pfizer is trialling lower doses among young people aged under 12.
3.0	**Research in Children** This item was not discussed.
4.0	**Vaccine Rollout** The daily vaccine report was presented to CV TAG. The rollout is proceeding at pace, and larger deliveries of Pfizer are expected each month. The Ministry is on track to move into the next round of invitations (Group 4 from 28th July).
5.0	**Myocarditis Recommendations Update**

	• A Medsafe alert on myocarditis will be published later this week. The draft communication was shared with CV TAG, and feedback will be collated by the Secretariat to share back to Medsafe.
	• CV TAG discussed the background rates of myocarditis, and rates post-Pfizer vaccination, internationally and in Aotearoa New Zealand.
	  ○ It was agreed that the US rates provided the best available baseline for comparisons with Aotearoa New Zealand.
	  ○ The US data is broken down further by gender, age group and follow-up time, and notes a risk of 1 in 25,000 for males aged 12-29 within 7 days of the second dose, and 1 in 238,000 for females aged 12-29 within 7 days of the second dose, for mRNA vaccines.
	  ○ Severity measures should also be incorporated into the presentation of the data, for example hospitalisation and/or ICU admission rates, if data are available.
	• Draft recommendations on the risk of myocarditis after Pfizer vaccination were discussed.
	  ○ CV TAG noted that there is some evidence that young people aged 16 to 29 years have a strong immune response after one dose, however that two doses provide the best protection. A delayed schedule for the second dose was discussed. Whether this potentially reduces the risk of myocarditis, in addition to the severity of other adverse events, is unknown.
	  ○ CV TAG recommended that for people aged 16 to 29 years the second dose be administered at least 8 weeks after the first.
	  ○ It was noted that this would have practical implications for the booking system, planning mass vaccination events, and public risk communications.
	• A memo with these recommendations will be updated and provided to the Director-General and CVIP.

6.0	**Children Priority Groups** • Draft recommendations for potential priority groups among children were shared with the group, to inform the Decision to Use for 12- to 15-year-olds • Priority groups over eas have included children who are about to under long-term immunosuppression, immunocompromised, in long-term residential care, requiring transplants or who have neurologic disabilities or gastrointestinal (multi-system medically vulnerable) conditions. Risk factors for COVID-19 such as obesity, respiratory disease, and ethnicity should also be taken into account. • CV TAG noted that the New Zealand's lack of community transmission was an important consideration for now, and vaccinating adults was the priority at this time. • STA will revise draft recommendations and share with CV TAG.
7.0	**Next Steps/Decisions Pending** None.
8.0	**Any Other Business** It was noted that Janssen could be an option for people with severe disabilities who find vaccination difficult, and therefore this group should be added to the 'Decision to Use Janssen' memo.
9.0	**Agenda items for next meeting** MMR and flu vaccine scheduling and co-administration was discussed. The STA are currently drafting advice on this for CV TAG's consideration, and it is scheduled for discussion at CV TAG's meeting on Tuesday 3 August.

10.0 **New Action Items Raised During Meeting**

#	Agenda item	Actions	Action Owner
33	Myocarditis after Pfizer Vaccination	Update message for Ministry of Health Comms on the risks of myocarditis.	Secretariat
34	Myocarditis after Pfizer Vaccination	Compile information on cardiac-related events associated with other vaccines in New Zealand's portfolio.	Secretariat
35	Science Updates	Compile and monitor updates on reduced Pfizer doses among children	Secretariat
36	Myocarditis after Pfizer Vaccination	Collate feedback on Medsafe's Myocarditis alert communication	Secretariat
37	Children priority groups	Update recommendations on children priority groups	Secretariat
38	Decision to Use Janssen	Add people with severe disabilities who find vaccination difficult as a priority group for Janssen	Secretariat

Meeting closed at **12:00 pm**

Next meeting: **Tuesday 27 July – 11:00am to 12:00pm**

Open Actions:

#	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 16/07 - Message updated and awaiting sign-off
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
35	Science Updates	Compile and monitor updates on reduced Pfizer doses among children	Secretariat	20/07 – Action raised
36	Myocarditis after Pfizer Vaccination	Collate feedback on Medsafe's Myocarditis alert communication	Secretariat	20/07 – Action raised
37	Children priority groups	Update recommendations on children priority groups	Secretariat	20/07 - Action raised

38	Decision to Use Janssen	Add people with severe disabilities who find vaccination difficult as a priority group for Janssen	Secretariat	20/07 - Action raised

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
29	Myocarditis after Pfizer Vaccination	Draft message for Ministry of Health Comms on the risks of myocarditis.	Secretariat	29/06 - Action raised 30/06 - Message signed off and sent to Comms
30	Myocarditis after Pfizer Vaccination	Convene a subgroup of CV TAG to advise on the risk of myocarditis.	Secretariat	29/06 - Action raised 30/06 Subgroup convened and provided advice
31	Myocarditis after Pfizer Vaccination	Request data from CVIP on numbers <30 in each group.	Secretariat	29/06 – Action raised 01/07 - Data received and incorporated into request for advice on myocarditis
32	Myocarditis after Pfizer Vaccination	Request behavioural insights information on vaccine hesitancy among <30	Secretariat	29/06 – Action raised 01/07 - Data received and incorporated into request for advice on myocarditis

Document eleven

MINISTRY OF HEALTH
MANATŪ HAUORA

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 27 July 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
Chair:	Ian Town
Members:	Elizabeth Wilson, James Ussher, Nikki Moreland, Nikki Turner, Peter McIntyre, Sue Crengle, Tony Walls
Ministry of Health Attendees:	Andi Shirtcliffe, Caroline McElnay, Edwin Reynolds, Fiona Callaghan, Juliet Rumball-Smith, Niki Stefanogiannis, Brooke Hollingshead, Shayma Faircloth, Pippa Scott
Guests:	Kris Golding
Apologies:	David Murdoch, Helen Petousis-Harris, Ian Frazer, Sean Hanna, Daniel Bernal

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 (20 July 2021) were accepted.
2.0	**Myocarditis Recommendations Update** The final memo on Myocarditis after Pfizer mRNA vaccination was shared with CV TAG and discussed. • The final memo included input and advice from Medsafe. • The Director-General has received the recommendations, and an implementation plan is currently being prepared within the Ministry, once the recommendations have been agreed by Ministers • CV TAG discussed the data supporting longer dosing intervals for Pfizer; Data showed higher immunogenicity was associated with an extended dosing interval (median 10 weeks) compared to the usual 3-4 weeks. • CV TAG discussed the recommended dosing interval for people under 30 years. CV TAG discussed the while an 8-week interval is recommended for this age group, administering the second dose between 6 and 12 weeks is acceptable, and that the exact timing is a programming decision. • It was agreed that all changes must communicated in a way to provide clarity.
3.0	**Decision to Use Pfizer 12-15 year-olds** CV TAG reviewed the memo on the Decision to Use Pfizer for 12- to 15-year-olds (dated 24 June 2021).

<table>
<tr><td></td><td>

CV TAG noted the potential for children to play a role in transmission in the community and the benefits of vaccination for children's personal protection.
CV TAG agreed that New Zealand's lack of community transmission was still an important consideration for now, and vaccinating adults was the priority at this time.
CV TAG agreed that exception should be made for priority groups of vulnerable 12 to 15 year-olds that are at higher risk from COVID-19 due to prior comorbidities, as outlined in the draft memo. CV TAG recommended vaccination progressing in these at-risk groups.
CV TAG recommended that the decision on vaccinating other 12–15 year-olds be deferred and reviewed at a future date, for example as the borders re-open and the immunisation of adults has progressed. A plan for vaccinating 12 to 15 year-olds should be in place in case of outbreak management.
CV TAG discussed the possibility of conducting trial research in New Zealand and Australia to compare the efficacy of single doses and two doses in 12 to 15 year-olds. Ongoing discussion of this option would be welcomed.
CV TAG noted that ATAGI's recommendations for 12 to 15 year-olds were under development, and that the Ministry would liaise closely with them, while noting the different portfolio of vaccines available in Australia may influence these decisions.
A memo on priority groups in 12-15 year olds will be provided to the Director-General and the COVID-19 Vaccine and Immunisation Programme (CVIP).

</td></tr>
<tr><td>4.0</td><td>Children Priority Groups
This item was covered as part of item 3.0.</td></tr>
<tr><td>5.0</td><td>Next Steps/Decisions Pending
None.</td></tr>
<tr><td>6.0</td><td>Any Other Business
None.</td></tr>
<tr><td>7.0</td><td>Agenda items for next meet ng

MMR coadministration.
Future vaccine portfolio and needs.

</td></tr>
<tr><td>8.0</td><td>New Action Items Raised During Meeting
<table>
<tr><th>#</th><th>Agenda item</th><th>Actions</th><th>Action Owner</th></tr>
<tr><td>39</td><td>Myocarditis after Pfizer Vaccination</td><td>Share draft messaging and timelines with CV TAG when available</td><td>Secretariat</td></tr>
</table>
</td></tr>
<tr><td colspan="2">Meeting closed at 11:35 am
Next meeting: Tuesday 03 August – 11:00am to 12:00pm</td></tr>
</table>

Open Actions:

#	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 28/07 - CVIP Comms progressing this this week.
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

Closed Actions Since Last Meeting:

#	Agenda item	Actions	Action Owner	Updates
35	Science Updates	Compile and monitor updates on reduced Pfizer doses among children	Secretariat	20/07 – Action raised 23/07 - Information will be included in next science docs update.
36	Myocarditis after Pfizer Vaccination	Collate feedback on Medsafe's Myocarditis alert communication	Secretariat	20/07 – Action raised 23/07 - Closed
37	Children priority groups	Update recommendations on chi dren priority groups	Secretariat	20/07 - Action raised 26/06 - Memo updated and shared with group.
38	Decision to Use Janssen	Add people with severe disabilities who find vaccination difficult as a priority group for Janssen	Secretariat	20/07 - Action raised 27/07 - Group will be added to memo update.

MINUTES: COVID-19 Vaccine Technical Advisory Group

Date:	Tuesday 3 August 2021
Time:	11:00am to 12:00pm
Location:	[redacted] Out of Scope [redacted]
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.

<table>
<tr><td></td><td>

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

</td></tr>
<tr><td>8.0</td><td>

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 wil be brought back to CV TAG.

</td></tr>
<tr><td>9.0</td><td>

Next Steps/Decisions Pending

None.

</td></tr>
<tr><td>10.0</td><td>

Any Other Business

- The ability to access vaccination info mation 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.

</td></tr>
<tr><td>11.0</td><td>

Agenda items for next meeting

None.

</td></tr>
<tr><td>12.0</td><td>

New Action Items Raised During Meeting

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

</td></tr>
</table>

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:	[redacted] Out of Scope
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	S9(2)(f)(iv) [redacted]
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.

<table>
<tr><td></td><td>

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

</td></tr>
<tr><td>9.0</td><td>

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.

</td></tr>
<tr><td>10.0</td><td>

Next Steps/Decisions Pending

None.

</td></tr>
<tr><td>11.0</td><td>

Any Other Business

None.

</td></tr>
<tr><td>12.0</td><td>

Agenda items for next meeting

None.

</td></tr>
<tr><td>13.0</td><td>

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>
</table>

</td></tr>
</table>

	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 rev ew	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:	[redacted] Out of Scope
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 d ive-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