Briefing

Identification of mpox vaccine safety signal and next steps

Date due to MO:	3 March 2023	**Action required by:**	N/A
Security level:	IN CONFIDENCE	**Health Report number:**	H2023021208
To:	Hon Dr Ayesha Verrall, Minister of Health		
Consulted:	Health New Zealand: ☒ Māori Health Authority: ☐		

Contact for telephone discussion

Name	Position	Telephone
Dr Nicholas Jones	Director of Public Health	s 9(2)(a)
Alison Cossar	Manager, Public Health Policy and Regulation	s 9(2)(a)

Minister's office to complete:

☐ Approved	☐ Decline	☐ Noted
☐ Needs change	☐ Seen	☐ Overtaken by events
☐ See Minister's Notes	☐ Withdrawn	

Comment:

Identification of mpox vaccine safety signal and next steps

Security level:	IN CONFIDENCE	**Date:**	3 March 2023
To:	Hon Dr Ayesha Verrall, Minister of Health		

Purpose of report

1. To update you on actions being undertaken by the National Immunisation Programme (the Programme) in response to the mpox vaccine safety signal identified by Medsafe, including recommendations from the Expert Advisory Network (EAN) and changes to advice to prescribers while the signal is investigated.

Summary

2. On 20 February 2023, Medsafe informed the Programme that the Centre for Adverse Reactions Monitoring (CARM) had received two reports of pericarditis occurring after vaccination with the mpox vaccine. The vaccine in use in Aotearoa New Zealand is an unapproved third generation smallpox vaccine manufactured by Bavarian Nordic. On 28 February CARM classified the level of causality between the cases and vaccine as "possible", and Medsafe has considered that these two reports represent a safety signal for this vaccine.
3. On 2 March 2023, as a precautionary measure, the EAN met to discuss the information presented and agreed to continue to make the vaccination available to groups most at risk of mpox. It recommended a slight change in the way the vaccine is delivered, but did not change the eligibility criteria. This included administration moving to full doses subcutaneously rather than fractional doses intradermally and a delay in second doses for people (other than those severely immunocompromised eligible people) while further information is sought.
4. On 2 March 2023, Medsafe published a monitoring communication as advised during their verbal update to you on the safety signal.

Recommendations

We recommend you:

a) **Note** that Medsafe is investigating a safety signal for pericarditis with the mpox vaccine.

b) **Note** that while the World Health Organization considers mpox still to be a public health emergency of international concern, cases have significantly decreased worldwide since the peak of the outbreak around August 2022.

c) **Note** that the National Immunisation Programme has sought further advice from the Expert Advisory Network on guidelines over mpox vaccine administration including eligibility and the safety signal.

d) **Note** that the Expert Advisory Network recommended, and the Programme is implementing, changes in administration from intradermal fractional doses to full subcutaneous doses and a delay in second doses for people other than those who are severely immunocompromised.

e) **Note** that the Public Health Agency will reconvene another meeting of the Expert Advisory Network in the next 6 weeks or earlier to review any further information or evidence that becomes available.

Dr Diana Sarfati

Director-General of Health

Te Tumu Whakarae mō te Hauora

Date: 03/03/23

Hon Dr Ayesha Verrall

Minister of Health

Date:

Identification of mpox vaccine safety signal and next steps

Context

1. Since 16 January 2023, the Programme has been delivering the mpox preventative consultation service, in which access to the third generation mpox vaccine is an option for eligible people (see Appendix One for eligibility criteria). The mpox vaccine, a two-dose vaccine, does not have regulatory approval and is supplied under section 29 of the Medicines Act 1981 (the Act).
2. On 20 February 2023, Medsafe informed the Programme that CARM had received two reports of pericarditis occurring after vaccination with the mpox vaccine. Medsafe has considered that these two reports represent an early safety signal for this vaccine. Around 1800 vaccines have been administered in New Zealand.
3. On 2 March 2023, Medsafe published a monitoring communication as advised during their verbal update to you on the safety signal.
4. On 2 March 2023, as a precautionary measure, the Expert Advisory Network (EAN) met to consider the early safety signal and made further recommendations based on the information available.

Mpox in Aotearoa New Zealand

5. The mpox vaccine is currently an unapproved medicine, and it remains unlikely that the manufacturer will seek regulatory approval during this current outbreak.
6. On 26 May 2022, the EAN provided its recommendation on the use of the mpox vaccine and relevant antivirals in Aotearoa New Zealand based on their assessment of the benefits and risks of harm, with the limited information and evidence, vaccine supply challenges and the absence of regulatory approval.
7. Based on their recommendation, the eligibility criteria are aimed at population groups at higher risk of exposure or further transmission, and close contacts and people whose occupations would place them at increased risk of severe disease.
8. As part of the Programme's mpox preventative consultation service, offering an unapproved mpox vaccine requires one-to-one clinical consultation with a medical practitioner. The consultation involves a comprehensive clinical risk-benefit assessment and informed decision-making process before consent is obtained and the vaccine is administered, to fulfil the requirements of the Code of Health and Disability Services Consumers' Rights.
9. The risk-benefit assessment discussion for individual vaccination is complex and depends on exposure risk, contraindications and precautions, and alternative options to vaccination. Wrap-around support for medical practitioners provided from the Programme is intended to facilitate fulfilment of prescriber responsibilities required in the informed-consent process before offering the vaccine.

Medsafe monitoring communication and Expert Advisory Network advice

10. Medsafe published a monitoring communication on 2 March 2023 stating Medsafe is investigating the safety signal received and encouraging any reporting. It will also review information from overseas as part of its investigation.

11. As part of usual pharmacovigilance processes, Medsafe will investigate this safety signal to try to confirm or refute pericarditis as a side effect to vaccination. The investigation will be more difficult than usual as this vaccine is unapproved in Aotearoa New Zealand and other countries, and as for any signal investigation, a definitive outcome may not be reached.

12. On 2 March 2023 the EAN met to discuss the early safety signal and advise next steps.

13. Based on the information presented, the EAN agreed that vaccination should continue to be made available to groups most at risk of mpox. As a precautionary measure, it noted that a temporary delay in second doses for people (other than those severely immunocompromised eligible people) was recommended while further information is sought.

14. The EAN noted that while two doses were recommended, good levels of protection against severe disease were provided by a single dose in the medium term.

15. The EAN also recommended a slight change in the way the vaccine is delivered. Given limited supply of the vaccine is no longer an issue, administration should be full doses subcutaneously rather than fractional doses intradermally. This is supported by there being more information and data available on subcutaneous administration. It should be noted that intradermal and subcutaneous routes have different immunogenicity and that dose comparisons between the two routes from an adverse effect perspective are not useful.

16. Vaccination will continue to be available only after a consultation with a prescribing doctor and prescribers are being provided with updated information about possible risks to inform those seeking vaccination.

The Programme's approach to the safety signal

17. This approach recognises the legal constraints to not promote or advertise the unapproved vaccine. Instead, it incorporates the current international context of a declining number of cases into its messaging around the continued mpox consultation service. Therefore, in Aotearoa New Zealand, the immediate need to offer the vaccine is diminishing when prescribers balance the individual's risk and benefit before offering vaccination.

18. To summarise the vaccine supply situation:

    a. 5,000 vials of third generation mpox vaccine have been received to date.

    b. 3,580 vials remain available for distribution from the central warehouse.

    c. The required documentation for the receipt of the further 15,000 vials has been received and the manufacturer is organising the shipment of these vials.

19. The Programme has commissioned the Immunisation Advisory Centre (IMAC) to complete a rapid review of the mpox prescriber guidelines. As a priority action, this

document will be available to prescribers on 2 March 2023 (Appendix 2). IMAC are preparing for increased calls for clinical and prescriber advice.

20. The mpox informed consent form has been reviewed and updated to strengthen awareness of rare and significant side effects after vaccination.

21. On 2 March 2023, the Programme hosted a provider, clinical leads and SRO webinar to brief them on the EAN meeting outcomes. This included advising provider actions for those booked for their second consultation (approximately 40 appointments in the Book My Vaccine site).

22. The Programme is engaging with stakeholders, including the Burnett Foundation, to brief them on the EAN outcomes and to align communication key messages on continued access to dose one, and prescribers will consider offering the second dose to severely immunocompromised eligible people.

23. Following Medsafe's communication, the Programme clinical leads will meet with Whakarongorau Aotearoa clinical advisors to revise the 0800 mpox call line health professional script when advising callers seeking an mpox consultation appointment.

Programme communication approach

24. The Programme's communication approach has been prepared. The purpose of the communications plan is to:

    a. Ensure stakeholders, prescribers and consumers are aware of Medsafe identifying a safety signal and what this means for them.

    b. Ensure prescribers and consumers of vaccination (and the public) are aware of steps underway currently to highlight the risk of adverse events and are reminded of the need to report any adverse events following immunisation.

    c. Maintain trust in the immunisation programme.

    d. Provide accurate and appropriate information to the medical practitioner conducting the informed decision-making discussion with the consumer.

Te Tiriti obligations

25. Te Tiriti considerations for Manatū Hauora, the Public Health Agency and Te Whatu Ora include tino rangatiratanga, equity, active protection, options and partnership. These continue to be upheld during the collation of evidence, planning, implementation and delivery, and pursuing equitable outcomes.

Equity

26. The implementation of the mpox preventative consultation service continues to consider equity implications on different populations groups in particular, Māori, Pacific peoples, LGBTQIA+ and disabled people.

27. It is important from the outset to take an equity and rights-based approach, including through advocacy, prevention, testing and treatment, and to work to address challenges such as homophobia, transphobia, racism, stigma, ableism and discrimination, and the compounding impacts of these for some populations e.g., Māori Takatāpui and tangata whaikaha.

28. Māori and Pacific people continue to be disproportionately affected, particularly Māori who are gay, bisexual and other men who have sex with men (GBMSM). Furthermore, there may be compounding discrimination experienced by disabled GBMSM and who therefore face additional barriers to appropriate sexual health care.

29. We recognise our responsibility to actively prevent the perpetuation of any stigma and discrimination associated with this disease. We will be working closely with the Burnett Foundation and rainbow communities in all aspects of the implementation.

Next steps

30. Te Whatu Ora will continue with the mpox preventative consultation service as presented in this briefing.

31. Officials will reconvene another meeting of the EAN in the next 6 weeks or earlier to review any further information or evidence that becomes available.

ENDS.

Appendix One – Current eligibility criteria for the funded mpox vaccine

The following cohorts are eligible for the funded mpox vaccine:

For vaccinations administered pre-exposure to mpox

(i) Population groups considered at higher risk of exposure or further transmission, including:

- Gay, bisexual and other men who have sex with men (GBMSM) who are engaging in behaviour associated with higher risk of exposure to mpox such as having multiple sexual partners
- People who are recommended to receive the vaccine by their doctor (such as Sexual Health, Infectious Diseases, General Medicine)
- Laboratory workers culturing the mpox virus, as determined by their employer

For vaccinations administered post-exposure to mpox

(i) Close contacts of people infected with mpox (e.g., intimate partners and people who live in the same household)

(ii) People whose occupation might put them at increased risk and if there is a breach of personal protection equipment (PPE) (i.e., healthcare workers caring for those infected with mpox and laboratory workers handling mpox swabs)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)

s 9(2)(c)