



# Clinician alert #89 – all clinicians

Effective from 19 October 2022

The Australian Technical Advisory Group on Immunisation (ATAGI) and the Cardiac Society of Australia and New Zealand (CSANZ) have recently updated the “Guidance on Myocarditis and Pericarditis after COVID-19 Vaccinations”.

## Important information for clinicians

- Myocarditis and/or pericarditis are rare side effects that have been associated with all brands of COVID-19 vaccine currently used in Australia; the available data suggest the risk is higher after an mRNA vaccine and is greater following Spikevax (Moderna) compared to Comirnaty (Pfizer).
- Pericarditis and myocarditis after COVID-19 vaccines have been mostly reported in males aged 16-40 years of age, and mostly after the second dose. However, these conditions do occur in both females and males, at any age, and after any dose, including a third or fourth dose.
- Myocarditis and pericarditis following vaccination can present with atypical features, such as the absence of chest pain, or the presence of abdominal pain or other non-specific symptoms. It is important to consider myocarditis in the differential diagnosis if someone presents with ongoing non-specific symptoms in the 1-2 weeks following a COVID-19 vaccine.
- Most myocarditis cases linked to COVID-19 vaccination have required hospitalisation, with most cases having a relatively mild and self-limiting course. Fatal cases have been reported, including in females.
- Patients with confirmed myocarditis should be admitted to hospital for cardiac monitoring, until the cardiac biomarker levels have peaked, and symptoms have improved.
- Follow-up cardiac MRI studies of patients who had experienced myocarditis following mRNA COVID-19 vaccination frequently demonstrated late gadolinium enhancement (LGE) in areas of their myocardium. Some studies have shown improved but persistent LGE a few months after onset of myocarditis. In other contexts, these changes have represented myocardial scarring. The clinical significance of these findings following myocarditis after COVID-19 vaccination is currently unknown.
- ATAGI recommends an 8-week interval between dose one and dose two for the Pfizer, Moderna and Novavax vaccines, particularly for males aged 12 to 39 years. This may reduce the risk of myocarditis and/or pericarditis following vaccination.
- Providers should consider the potential risk of myocarditis and pericarditis when selecting a COVID-19 vaccine brand and dose interval, considering the individual’s age, gender, preferences, and any precautions in relation to specific vaccine brands.

## Background

### **Vaccination remains the best way to protect against COVID-19 and its related complications**

Most individuals have a higher risk of complications (including myocarditis/pericarditis) from COVID-19 infection than from a vaccination. COVID-19 is estimated to cause myocarditis at a rate of approximately 30-32 excess cases per million. In males aged 16-40 years, it is uncertain whether the risk of myocarditis following COVID-19 infection remains higher than the risk following COVID-19 vaccination.

### **Adverse event reporting**

All suspected adverse events following immunisation (AEFI), including vaccine administration errors, should be reported to the Western Australian Vaccine Safety Surveillance (WAVSS) system, online through SAFEVAC <https://www.safevac.org.au>. These reports are shared with the Therapeutic Goods Administration (TGA).

Reports of suspected myocarditis via the WAVSS system will typically trigger referral to a dedicated vaccine safety clinical service which can provide advice regarding future COVID-19 vaccinations.

### **Further information**

The full "Guidance on Myocarditis/Pericarditis after COVID-19 vaccines" is available at [https://www.health.gov.au/sites/default/files/documents/2022/09/covid-19-vaccination-guidance-on-myocarditis-and-pericarditis-after-covid-19-vaccines\\_0.pdf](https://www.health.gov.au/sites/default/files/documents/2022/09/covid-19-vaccination-guidance-on-myocarditis-and-pericarditis-after-covid-19-vaccines_0.pdf). The document includes further detail on rates, vaccine selection considerations and recommended follow up of patients.

The findings from the TGA Vaccine Safety Investigation Group meeting on 7 Sep 2022, including review of a fatal case of myocarditis following vaccination, are available at: <https://www.tga.gov.au/news/covid-19-vaccine-safety-reports/covid-19-vaccine-safety-report-23-09-2022>

A useful summary outlining which vaccines and doses are recommended for each age and population group can be found at: <https://www.health.gov.au/resources/publications/ataqi-recommended-covid-19-doses-and-vaccines>.