

EXPERT COMMITTEE ON COVID-19 VACCINATION: UPDATES OF ASSESSMENT ON MYOCARDITIS AND PERICARDITIS FOLLOWING VACCINATION WITH MRNA COVID-19 VACCINES

5TH JUL 2021

1. Given the emerging data on the small risk of myocarditis and pericarditis observed after vaccination with mRNA COVID-19 vaccines, the Expert Committee on COVID-19 Vaccination recommends that all vaccinated persons, in particular adolescents and younger men, who have received any dose of the mRNA COVID-19 vaccines, should avoid any exercise or strenuous physical activity for one week after vaccination. During this time, the vaccinated persons should seek medical attention promptly if they develop chest pain, shortness of breath or abnormal heartbeats. All doctors should also be vigilant around such clinical presentations after vaccination.

Updates on Incidence of Myocarditis and Pericarditis following Vaccination with mRNA COVID-19 Vaccines

2. The Expert Committee recommended on 11 June 2021 that vaccinated persons, in particular adolescents and younger men, avoid strenuous physical activity for one week after their second dose of the mRNA COVID-19 vaccines. The recommendations are now being updated based on the additional data that has since accrued both locally and internationally.

3. In its third COVID-19 vaccine safety update released on 5 July 2021, the Health Sciences Authority (HSA) highlighted that as of 30 June 2021, it had received 12 reports of myocarditis and pericarditis occurring in individuals following their vaccinations with mRNA COVID-19 vaccines. Five of the cases occurred in adults aged 30 years old and above. Seven of the cases involved males aged below 30 years old, which is higher than expected for this age group, based on background incidence rates. While most of the cases reported previously had occurred after dose 2 of their vaccination, HSA had also started to receive reports of some cases that occurred after dose 1. The Expert Committee has also been informed of a case of a 16-year-old male who suffered a cardiac arrest, shortly after a strenuous weightlifting session at a gym that took place 6 days after receiving his first dose of the mRNA COVID-19 vaccine. Investigations are on-going into the cause, including the possibility of acute severe myocarditis, underlying conditions that can result in this, as well as possible links with his COVID-19 vaccination. While most persons with vaccine-related myocarditis observed locally and internationally have mild symptoms and make an uneventful recovery, it is possible that the condition may be aggravated by factors or strenuous activities that may affect the heart.

Expert Committee's Recommendations

4. Given the additional data on the small but nevertheless statistically-significant risk of myocarditis/pericarditis occurring after vaccination with both the first and second doses of an mRNA COVID-19 vaccine, the Expert Committee recommends that all vaccinated persons, in particular adolescents and younger men, who have received any dose of the mRNA COVID-19 vaccines, **should avoid exercise or strenuous physical activity for one week after the vaccination**. During this time, the vaccinated persons should seek medical attention promptly if they develop chest pain, shortness of breath or abnormal heartbeats. All doctors should also be vigilant around such clinical presentations after vaccination.

5. In addition, any persons who are diagnosed with myocarditis following their receipt of an mRNA COVID-19 vaccine should not receive further doses of mRNA COVID-19 vaccines.

6. After extensive deliberation, the Expert Committee continues to recommend vaccination with mRNA COVID-19 vaccines for all eligible persons, including adolescents and younger men, as the protective benefits from the mRNA COVID-19 vaccines continue to outweigh the risks of vaccination. Vaccinations should continue to remain voluntary.

7. COVID-19 is likely to become endemic in Singapore and around the world. Even with high vaccination rates in our population, settings with low overall levels of vaccination will continue to be susceptible to outbreaks. The risk of transmission and outbreak in settings such as schools or workplaces where there is close contact amongst individuals will likely be higher. Infection of unvaccinated individuals can lead to severe disease and long-term complications, including multisystem inflammatory syndrome in children. As previously indicated, overseas experience shows that a small but significant proportion of children diagnosed with COVID-19 can require intensive care and have poor health outcomes. Despite low COVID-19 cases currently, explosive outbreaks with highly transmissible new variants are unpredictable, as shown in our recent experience with the Delta variant and similar experiences overseas. Vaccination is thus important to protect all individuals from COVID-19, even for young persons.

8. The use of safe and efficacious COVID-19 vaccines in Singapore is of paramount concern to the Expert Committee, and the Expert Committee will continue to monitor local and international data to ensure our vaccination recommendations are up to date based on the latest scientific evidence available.

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