

To: Nova Scotia Health Care Practitioners and Immunizers

From: Dr. Shelley Deeks, Deputy Chief Medical Officer of Health

Date: January 10, 2022

Re: *SUBSEQUENT DOSES OF COVID-19 VACCINE FOLLOWING MYOCARDITIS AND/OR PERICARDITIS: NEW RECOMMENDATIONS*

Rare cases of myocarditis (inflammation of the heart muscle) and pericarditis (inflammation of the lining around the heart) have been reported following vaccination with COVID-19 mRNA vaccines. Cases following mRNA COVID-19 vaccination are consistently reported to have occurred:

- More often after the second dose
- Usually within a week after vaccination
- More often in people who are 12 to 30 years of age
- More often in males

Following review of the latest evidence and consultation with Canadian cardiologists, the National Advisory Committee on Immunization (NACI) has issued updated guidance on subsequent doses of mRNA COVID-19 vaccine for individuals who experienced myocarditis and/or pericarditis after a previous dose of an mRNA COVID-19 vaccine. This guidance will be published in the [Canadian Immunization Guide](#) (COVID-19 chapter).

- As a precautionary measure until more information is available, **further doses of mRNA COVID-19 vaccines should be deferred among people who experienced myocarditis with or without pericarditis within 6 weeks of receiving a previous dose of an mRNA COVID-19 vaccine.** This includes any person who had an abnormal cardiac investigation including electrocardiogram (ECG), elevated troponins, echocardiogram or cardiac MRI after a dose of an mRNA vaccine.

However, individuals with a **history compatible with pericarditis** and who either had **no cardiac workup** or had **normal cardiac investigations**, can receive subsequent doses of mRNA vaccine once they are symptom free and **at least 90 days has passed since vaccination.**

Some people with confirmed myocarditis with or without pericarditis **may choose to receive another dose of vaccine after discussing the risks and benefits with their healthcare provider.** If another dose of vaccine is offered, they should be offered the **Pfizer Comirnaty 30 mcg vaccine** due to the lower

reported rate of myocarditis and/or pericarditis following the Pfizer Comirnaty 30mcg vaccine compared to the Moderna 100 mcg vaccine.

Informed consent should include discussion about the unknown risk of recurrence of myocarditis and/or pericarditis following receipt of additional doses of the Pfizer Comirnaty COVID-19 vaccine in individuals with a history of confirmed myocarditis and/or pericarditis after a previous dose of mRNA COVID-19 vaccine, as well as the need to seek immediate medical assessment and care should symptoms develop.

Data suggests that myocarditis/pericarditis occurs less frequently after a longer interval between the first and second vaccine compared to a shorter interval and more frequently following vaccination with the Moderna Spikevax (100 mcg) COVID-19 vaccine compared to the Pfizer Comirnaty (30 mcg) vaccine. NACI recommends that **people under age 30 receive the Pfizer Comirnaty vaccine**. While long-term follow-up is ongoing, available data indicate that the majority of individuals affected, while hospitalized, have responded well to conservative therapy and tend to recover quickly.

There are limited data on the risk of myocarditis/pericarditis following a half-dose (50mcg) of Moderna Spikevax when used for booster doses. Information regarding the occurrence of myocarditis/pericarditis following the lower dose (10 mcg) of Pfizer Comirnaty vaccine in 5–11-year-olds is unavailable at this time.

There are many potential causes for myocarditis and pericarditis. Myocarditis can also occur as a complication in people who are infected with COVID-19. The benefits of receiving mRNA COVID-19 vaccine outweigh the very small risk of myocarditis/pericarditis in people of all ages.

NACI will continue to review and monitor the evidence on individuals receiving subsequent doses of mRNA COVID-19 vaccine following myocarditis and/or pericarditis as it emerges and will update their recommendations as needed.